BUILDING CAPACITY AND RESILIENCE FOR BORN-DIGITAL STEWARDSHIP COMMUNITIES OF PRACTICE

In this three-year, Early Career Research Development project, The School of Information and Library Science at the University of North Carolina at Chapel Hill (UNC-SILS) requests $387,343 from the Laura Bush 21st Librarian Program for *Building Capacity and Resilience for Born-Digital Stewardship Communities of Practice.* Project Director (PD) Dr. Alexandra Chassanoff will investigate field-wide challenges and potential opportunities for sustaining born-digital stewardship in U.S. libraries and archives. The project will answer the following research questions: (1) How do born-digital stewards describe their current needs and ongoing challenges? (2) What professionalization pathways exist and how might they support born-digital stewards in their work? (3) What role do professional communities of practice play in supporting born-digital stewardship and how do born-digital stewards describe their impact and value?

Using qualitative methods for data collection and analysis, the project intentionally centers born-digital steward perspectives to understand core challenges and identify meaningful pathways forward. Project deliverables include: a synthesis of current professionalization pathways (educational training and professional development); **A Summative Report on Born-Digital Stewardship** surveying current challenges and opportunities; a **Guide to Cultivating Professional Born-Digital Stewardship Communities of Practice and Advocacy Modules***;* and published journal articles and conference presentations sharing practitioner perspectives. The proposed project aligns with IMLS LB21 **objective 2.3** by advancing the PD's long term research agenda, career trajectory and professional development. Outcomes from this research also align with **objective 3.5** to support training of the library and archival workforce in digital collection management, by identifying pathways for professional development, training, and educational opportunities and sharing advocacy strategies for continuous learning, collaboration, and knowledge exchange.

Project Justification

Historically, digital stewardship initiatives in libraries and archives have emphasized the critical role that communities of practice (CoPs)[1] play in supporting practitioner work (NDIPP, 2000; NDSA, 2011). Recent events, however, paint a troubled picture of born-digital stewardship in practice. An Ithaka S&R survey notes that "**there appear to be thousands of heritage organizations undertaking little to no digital preservation activity**" (Rieger et al., 2022). Institutions currently "lack the broad capacity to preserve born-digital materials with confidence" (Herzinger et al., 2023) and born-digital practitioners note growing dissatisfaction with their jobs (NDSA 2017; NDSA 2020). A similar trend can be seen in the broader archival profession, where one in five archivists "anticipate leaving their position in the next five years," citing burn-out as a significant factor (Skinner & Hulbert, 2022). These findings underscore the need to critically examine misalignments in the field between institutional goals and administrative expectations for born-digital stewardship and the existing capacity of boots-on-the-ground practitioners.

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[1] **Communities of practice** are "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger-Trayner, 2015).

The practice of born-digital stewardship[2] poses a unique set of evolving and ongoing challenges for libraries and archives. Born-digital materials, defined as "items created and managed in digital form" (Erway, 2010), carry inherent risk (obsolescence, degradation, bit rot) and thus present a more urgent timetable for near-term preservation actions (AIMS Project, 2012; Lee et al., 2012). To remain accessible and usable over time, born-digital collections require active attention throughout their content lifecycle (Smith-Rumsey, 1999; Jones & Beagrie, 2000; Pennock, 2007). Ideally, practitioners can accession born-digital content shortly after acquisition. Realistically, however, content may be transferred to dark storage or shelved upon arrival with the field in need of a "cohesive and compelling roadmap" for the work ahead (Rieger, 2018). Despite the need to proactively address preservation needs, discernible best practices for processing born-digital materials in libraries and archives lag behind acquisition of materials and increased demand for access (Jaillant, 2022).

In the last two decades, working groups known as communities of practice (CoPs) have served as infrastructural band aids for advancing born-digital preservation initiatives and activities (Clements et al., 2020). Outputs from these initiatives have been instrumental in addressing gaps presented by contemporary archival processing standards (DeRidder & Helms, 2016). Examples of impactful work led by born-digital CoPs include: NDSA's Levels of Preservation, the Data Curation Network's Data Curation Primers, and the UC Guidelines for Born-Digital Archival Description. These achievements demonstrate the viability and value of community-driven support structures for knowledge exchange, skill-building, collaboration, and learning. At the same time, these efforts have largely relied on **volunteer labor by practitioners** – participatory efforts that are likely unsustainable given the reported high rates of burnout and job dissatisfaction. This research proposes to contribute to a reimagining of born-digital stewardship in practice, by grounding inquiry in the "bottom-up realities" of current practitioner experiences (Kouper, 2016). As mission-critical stakeholders, their perspectives can help identify and drive meaningful interventions with broad impact.

Mind the gap: From digitized to born-digital collections
Electronic recordkeeping archivists and records managers played a central role in the first wave of digital preservation theory, influenced by the affordances and practical realities of working in networked, distributed computing environments (Dollar, 1978; Hedstrom, 1984; Naugler, 1984; Bearman, 1989). As the field matured over the next two decades, conceptual approaches to preserving digital information became a focal point for research and development (Lesk, 1990; Kenney and Personius, 1992; Garrett & Waters, 1996). The creation of multiple theoretical frameworks, standards, and models was driven by the aspiration of advancing digital preservation practice. The Open Archival Information Systems (OAIS) Reference Model, published in 2003, quickly becoming the de-facto gold standard for libraries and archives committed to long-term preservation (CCDS, 2003; Lavoie, 2004). Librarians, archivists, and technologists found that OAIS contributed "a common language and concepts for different professional groups involved in digital preservation and developing archiving systems" (Beagrie, 2003, p. 45). A related framework called the Trusted Digital Repository (TRAC/TDR) outlined repository attributes and responsibilities for managing collections sustainably (RLG-OCLC Working Group on Digital Archive Attributes, 2002).

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[2] **Born-digital stewardship** is defined as the active caretaking and management of born-digital objects over time.

Digital preservation practitioners and researchers have expressed difficulties with implementing these abstract, high-level frameworks into actionable preservation tasks (McDonaugh, 2013; Cocciolo, 2014; Wilson, 2018; Keitel & Mitcham, 2023) and point to the need for "short term strategies that might ultimately serve as a bridge" (Goldman, 2011). As a reference model, OAIS offers a generic conceptual framework for preserving digital information objects without becoming mired in specific implementation details (Higgins, 2006). Yet as a starting place for building digital preservation programs, the OAIS model (at a bulky 135 pages) can be intimidating, confusing, and complex. Though many institutions agree on the importance of establishing trustworthy repository environments, becoming "OAIS compliant" is challenging work (Richards, 2016). Similarly, TRAC/TDR has been called "expensive and time consuming" and it can be challenging "to even begin the process of interpreting and prioritizing the activities and organization should pursue" (Gallinger et al., 2017). The previous effort morphed into a formal certification process offered by the Center for Research Libraries. To date, only six institutions have received repository certification.

Coordinating a moving target: Born-digital stewardship in practice
Born-digital stewardship activities are often interwoven into the daily experiences of practitioner work, and moving parts may converge at different parts of the stewardship process. In an early study of special collections libraries, 79% of institutions surveyed reported having collections containing some born-digital materials, but no active procedures or plans in place for managing content (Dooley & Luce, 2010).
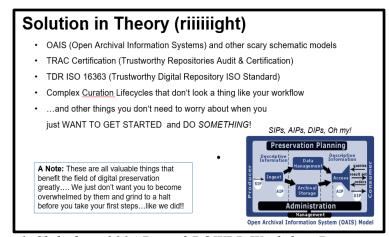

Figure 1. Slide from 2014 Digital POWRR Workshop Presentation

This trend appears to have continued in the interim, expanding the gap between theoretical frameworks and institutional capacity for acquiring, describing, and preserving born-digital materials (see Figure 1). While the number of institutions that have digital preservation policies may have increased, the ability of these institutions to execute and carry out preservation actions for managing born-digital content over time remains unclear. For example, a close reading of digital preservation policies maintained at ARL institutions reveals that "a gap that is present in most of the policies in exactly how this work will be completed or how comprehensive the work will be" (Dressler, 2017). Frameworks and maturity models for assessing digital preservation readiness are themselves understudied and lack rigorous evaluation (Becker et al., 2017; Maemaura et al., 2017).

Apart from institutional factors, the ever-expanding range of competencies and skills needed to successfully preserve born-digital materials is a persistent issue that has only intensified with time. Archivists and librarians working with born-digital collections often face a moving target of implementation, testing new methods, tools, and technologies for acquiring, preserving, and providing access to content (Carroll et al., 2011; Clements et al., 2019). Absent first steps, the care taking of born-digital materials can quickly become an overwhelming conceptual and technical quagmire for practitioners since "not much DP training translates into action" (Rinehart et al., 2014). Breakdowns or misalignments in the process directly impact the ability of institutions (and practitioners) to maintain and preserve content over time (Post et al., 2019).

Closing the born-digital implementation gap

Understanding and addressing the current gaps, existing challenges, and potential opportunities in born-digital stewardship is an instrumental part of the PD's long term-research plan. Several professional born-digital working groups currently identify as "communities of practice" (CoPS) but the role they play in supporting practitioners and how they contribute to ongoing professional practice has received limited empirical attention in library and information science (LIS). LIS researchers studying emerging areas of technical practice indicate the usefulness of CoPs in developing shared vocabularies and transferring cross-domain knowledge (Rios et al., 2020). CoPs can help librarians understand the needs of researchers (Green, 2014; Freeman et al., 2022). The potential value of CoPs seems evident for born-digital stewardship, as they give practitioners the opportunity to "talk through technical issues and organizational questions" (Spence et al., 2019). Applying a CoP lens in researching current practitioner experiences can establish baseline understandings that serve pragmatic ends. For example, how do practitioners participating in current CoPs describe their experiences? How do CoPs expand capacity-building and increase resilience for practitioners? What motivates or inhibits practitioner participation? How might professional incentives contribute to and advance practice? Careful investigation of these gaps can potentially steer theory and practice forward in actionable ways by providing evidence-based assertions about CoP value and impact (Koliba & Gajda, 2009).

This project will also research the professional training and educational opportunities available to practitioners for building and enhancing technical skills, and share these widely at conferences and in publications. Synthesizing current education and professional development efforts will help new practitioners "plug-in" to professionalization pathways. Born-digital stewardship is still very much an ad-hoc process, with practitioners contributing to research and development efforts through exploratory practices (Clemens et al., 2020). Establishing cogent pathways (especially for new professionals) can help practitioners "skill up" to navigate these complexities. Similarly, in recent research on graduate level LIS archives programs, faculty report a struggle to keep up with technological changes (Poole & Todd-Diaz, 2022). Studies analyzing digital preservation curriculum offerings also note that "digital preservation techniques were not strongly represented in the literature used in the classroom, such as emulation, migration, fixity, and persistent identifiers, which indicate the need to emphasize technical and practical aspects of digital preservation within the classroom"(Murillo & Yoon, 2021). These discrepancies suggest that as the field matures, LIS educators and practitioners must engage in continuous refreshment of professional development skills and training. This research aims to provide clear pathways for current professionalization opportunities, with a reusable methodology for future research.

PD Chassanoff is uniquely qualified to conduct this research. In the last fifteen years, she has been involved in multiple digital preservation initiatives as an active participant, researcher, and scholar. She is deeply committed and motivated to address the wicked problems of born-digital preservation and curation, and is well-versed in undertaking exploratory research with the aim of providing new theoretical perspectives, frameworks and approaches to guide the field. She has a strong commitment to participatory practice and sees value in collaborative responsibility, often working with practitioners to create/participate in working CoPs[3] and to develop professional guidance and documentation for meeting practitioners where they are to advance practice.[4]

Impact on current practice
The project was designed to amplify the needs of born-digital stewards and highlight clear pathways for capacity-building measures as necessary and urgent interventions. With the help of the advisory board, the project team will target a wide range of dissemination venues to share project findings and outcomes. Sharing practitioner experiences navigating challenges can help counterbalance unrealistic expectations that born-digital stewardship can be a one-size fits all approach. The PD's long-term involvement in digital preservation fellowship programs, community building, and consulting may increase the project's visibility and reach, especially for targeting middle management and high-level administrators as audiences.

Centering practitioner perspectives in this research will help articulate how perceived support structures such as communities of practice and professionalization contribute value to practitioner experiences. The PD has observed the power in community engagement as a useful strategy in technical practice settings, often providing actionable guidance for how to approach a similar problem. For example, the uptake and adoption of the BitCurator software environment improved significantly after the project team incorporated community engagement techniques.[5] Similarly, during the OSSArcFlow Research project (*IMLS #LG-71-17-0016-17*) partner-sharing of workflow documentation served an important double purpose. It visualized the problems areas and prompted practitioners to articulate solutions towards aspirational preservation goals (Chassanoff and Wang, 2020; Post and Chassanoff, 2021). These findings are echoed by Clemens et al., (2020) who note that "the engagement and vulnerability involved in sharing works in progress resonates with people, particularly practitioners who are working to determine and achieve best practices in still-developing areas of digital archives and user services."

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[3] To explore alternatives to disk imaging as a preservation strategy, the PD helped to create the DAAANG working group. She has also contributed to the Software Preservation Network's Research-in-Practice working group and DLF Born-Digital Access Group.

[4] The PD contributed to Educopia Institute's Community Cultivation Field Guide (2018) and The OSSArcFlow Guide to Documenting Born-Digital Workflows (2020), two freely available guides aimed at supporting communities of born-digital practitioners. The Society of American Archivists awarded the latter publication as "Preservation Publication of the Year" in 2021.

[5] Successful strategies included: creating A Quick Start Guide to provide hands-on instruction with software installation and setup; incorporating site visits for helping practitioners use software; and the formation of the BitCurator Consortium to lay the groundwork for community-building.

2. Project Work Plan

To understand the widening gap between institutional goals and existing capacity in born-digital stewardship in practice, this research will use qualitative methods and ethnographic inquiry to answer the following questions:

1. How do born-digital stewards describe their current needs and ongoing challenges?
2. What professionalization pathways exist and how might they support born-digital stewards in their work?
3. What role do communities of practice play in born-digital stewardship and how do born-digital stewards describe their impact and value?

Theoretical framework

To guide analysis in investigating these questions, the project will apply concepts from the communities of practice (CoPs) theoretical literature and science and technology studies (STS). The concept of communities of practice was first introduced by Jean Lave and Etienne Wenger (1991) in their groundbreaking study of apprenticeships. Their findings showed that learning new skills and practices are fundamentally social activities. As part of a broader social system of knowledge sharing and learning, there is evidence that CoPs provide a bridge between navigating sociotechnical challenges with infrastructural supports (Wenger, 2010). They are useful for engaging professionals in developing infrastructural scaffolding to "learn, adapt, and remain sustainable, through a process of maturation…that they contribute to (Lave & Wenger, 1991). Wenger (1998; 2015) has continued to develop useful CoP models and frameworks for studying sites as opportunities for participatory social learning.

Born-digital stewards navigate a host of sociotechnical and organizational challenges in the midst of coordinated, distributed work in hybrid settings. Observing these processes often requires a convergence of methods. Integrating concepts from Science and Technology studies (STS) will help the team identify and illuminate critical sociotechnical and infrastructural dimensions, factors that can play significant roles in organizational challenges (Starr, 1999; Suchman et al., 1999; Orlikowski, 2000). In the PD's own previous research experiences on legacy software (Chassanoff & Altman, 2019) and sociotechnical impediments to workflows (Post et al., 2019), articulating these factors was an important aspect in supporting stewardship. Ultimately, the PD is interested in formally extending the CoP theoretical framework to include sociotechnical and infrastructural dimensions, in order to build new theory (Eisenhardt, 2021).

Project Activities *(please see Schedule of Completion for overview)*

Year 1: August 2024-July 2025

In Year 1, the project aims to understand the current landscape of born-digital stewardship by researching practitioner needs and ongoing challenges **(RQ1)** and identifying relevant professionalization pathways for born-digital stewardship **(RQ2)**. In the first four months, the project will recruit a doctoral research assistant (GRA) from the School of Information and Library Science at UNC Chapel Hill (*see Resumes.pdf for position description*). The PD and GRA will collaborate on the design of research protocols and launch a UNC-hosted project website to share activities and progress. In October 2024-December 2024, the project team will conduct an **environmental scan** of the born-digital stewardship professional and educational landscape, to identify and synthesize: a) education and training opportunities (para-

professional/professional institutes, annual workshops, residencies); b) curricular offerings in MLIS/MLS academic programs; and c) current research (journal articles, white papers, grant-funded research projects). Findings will provide a descriptive overview of current educational, training, and professionalization pathways for born-digital stewardship. The team will use these to generate a revised profile of **expected born-digital steward competencies** (Lee, 2013; Blumenthal, et al., 2016).

In January 2025, the project team will meet with the advisory board for a two-hour virtual meeting, to review research protocols and intended deliverables. Following the meeting and any revisions, the project team will submit IRBs for data collection and analysis. Both the environmental scan and the identified competencies will contribute to the development of an **survey/questionnaire** gathering data from practitioners working in born-digital stewardship roles[6] in U.S. libraries and archives. Survey questions will address practitioners' current challenges and ongoing needs, perceptions about existing support structures, and motivations or barriers to participatory efforts and related motivations or inhibitions. Upon IRB approval, recruitment will begin using purposive sampling methods (targeted emails to practitioners, discussion boards, working groups, and mailing lists) to gather information-rich cases (Patton, 2008). The target goal for recruitment is approximately 150 participants, with an expected close date of July 2025. Participants will receive $50 stipends for their time *(please see Budgetjustification.pdf)*. After the survey closes, the team will use thematic coding analysis (Braun & Clarke, 2006) to identify common themes and patterns with an anticipated completion of July 2025. Survey data will be triangulated with environmental scan results to develop a holistic understanding of the current born-digital stewardship ecosystem through practitioner perspectives. Over the next two months, the project will use qualitative data from the survey and environmental scan to develop and release "**A Summative Report on Born-Digital Stewardship in Practice."** The team will submit a panel proposal to share results from Phase 1 of the project at the Society for American Archivists annual conference *(to take place in Year 2)*. The PD and GRA plan to co-author a journal article for submission to *Library and Information Science Research*, sharing current findings from both the survey and report, and aiming to spark field-wide discussion on professionalization.

Year 2: August 2025-July 2026
In August 2025, the project team will attend the Society for American Archivists conference and present preliminary findings from the Summative Report. This conference was intentionally chosen because of its focus on current practitioner needs and professional development. Year 2 research activities focus on **collecting and studying practitioner experiences** at four active born-digital communities of practice (CoP) field sites (see Table 1) to understand the role that professional communities of practice play in born-digital stewardship and how stewards perceive their value and impact **(RQ3)**. The PD selected a diverse group of communities to reflect a broad assemblage of institutional types (e.g., libraries, historical societies, special collections archives, museums), roles (e.g., technical services teams, digital preservationists, research data curators), and born-digital management needs (e.g., floppy disks, electronic records, research

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[6] Born-digital stewardship is an intentionally broad description, given the inconsistent definitions and cross-domain applicability of the work (born-digital curation, digital preservationists, etc) practitioners in libraries and archives do. Recruitment emails will need to specify criteria for inclusion, such as the kind of work activities practitioners undertake. The advisory board is expected to provide additional useful insight on terminology.

data, software). All four sites self-identify as "communities of practice" in websites and published literature. Both BCC and NDSA are consortium-driven membership organizations, while DLF-BDAWG and DCN are membership-driven. Each group has produced multiple community-driven research outputs in the last decade.

CoP Field Sites	CoP Areas of Focus	Founded	Institutional home
#1 The BitCurator Consortium (BCC)	Digital forensics for archival practitioners; born-digital data	2014	Educopia Institute
#2 The National Digital Stewardship Alliance (NDSA)	Digital and born-digital stewardship	2010	Currently looking
#3 The Data Curation Network (DCN)	Curation of research data	2016	University of Minnesota
#4 DLF-Born-Digital Access Working Group (DLF-BDAWG)	Born-digital access practices	2017	Digital Library Federation

Table 1. Descriptions of Communities of Practice Field Sites

The project will begin **CoP site observations** in September 2026, aiming to observe approximately 3-5 community-wide interactions (e.g., monthly meetings, webinars, working group assemblies). The team will use thick description techniques (Geertz, 1973) to facilitate rich capture of participant experiences throughout different activities. Additionally, the project plans to solicit and collect assorted CoP artifacts (e.g., governance, membership strategies, working group research outputs). In October 2025, the project will hold the first two of **Focus Group sessions** for members of CoPs #1 and #2, followed by a second focus group session in December 2025 for members of CoPs #3 and #4. The project aims to recruit five members from each CoP to participate in sessions and receive a $50 stipend for their time. The goal of focus group sessions is to learn more about *how* practitioners participate in CoPs by asking them to share their experiences in various CoP activities and how they perceive their value. Data collected throughout year 2 will be triangulated at different parts of the research process, and analyzed using a grounded theory approach to thematic analysis (Fereday & Muir-Cochrane, 2006; Charmez, 2004). The PD prefers this approach in exploratory research, particularly when new theoretical concepts can emerge through deductive coding. Applying the CoP theoretical framework augmented by STS concepts will help guide the team in identifying CoP attributes and qualities in collected data. Triangulation is particularly useful as an analytical method when "each data source is one piece of the puzzle, with each piece contributing to the researcher's understanding of the whole phenomenon" (Baxter and Jack, 2008).

Year 3: August 2026-July 2027)
To continue to study the role that CoPs play in born-digital stewardship (**RQ3**), the project will begin recruitment for **Expert CoP Stakeholder Interviews** in August 2026. In this research, expert CoP stakeholders are defined as born-digital stewards who have played a significant role in the CoP lifecyle (Skinner et al., 2018) and may or may not be current active in the community. The PD has worked closely with a number of expert CoP stakeholders and capturing these important perspectives can provide valuable insight into the factors that drive overall CoP health and sustainability. The project aims to interview ten expert CoP stakeholders in-person and virtually using Zoom throughout the first half of Year 3, with participants receiving a $100 stipend. Interview transcripts will be generated using otter.ai throughout this period.

In November 2026, the PD will summarize and present preliminary findings from Years1 and 2 related to born-digital stewardship as a sociotechnical practice at the Annual Conference for the Association for Information Science and Technology (**ASIS&T**). Interview transcriptions will conclude in December 2026. The project team will meet with the Advisory Board for a second time in January of 2027, to share project findings and focus on wide dissemination of project findings. Data analysis and triangulation of stakeholder interviews will take place in February and March of 2027. The project team will then turn full attention to developing the **Guide to Cultivating Professional Born-Digital Stewardship Communities of Practice**, informed by data collected and analyzed throughout the project. The Guide will articulate the value and impact of CoPs, recommended actionable pathways for community cultivation and sustainability in born-digital stewardship, and sharing exemplar experiences from born-digital stewards who have participated in successful CoP activities. To accompany the Guide, the team will develop three **Advocacy Learning Modules** (recorded videos) to offer strategic guidance for addressing core advocacy challenges experienced in born-digital stewardship practice. Potential content might include: communicating the value of purchasing and/or installing specific born-digital software to administrators; helping practitioners advocate for professional development participatory incentives; promoting collaborative sharing and learning opportunities through CoP membership participation. The team will work closely with the advisory board to identify high-impact dissemination outlets and plans to release the Guide and Learning Modules in June of 2027.

Research team
Project Director: Dr. Alexandra Chassanoff is an Assistant Professor in Digital Curation at the School of Information and Library Science at the University of North Carolina Chapel Hill (UNC SILS). Since becoming a DigCCurr fellow in 2009, she has spent the last fifteen years studying the wicked problems of digital preservation, often in embedded settings with library technologists, archivists, curators, and scholars.

Doctoral student (To Be Named): A doctoral student pursuing a degree in library and information science at UNC Chapel Hill will serve as a graduate research assistant over this three-year project, playing a significant role in both project design and execution. The PD will work closely with the student on collaborative data collection, analysis, writing, and research dissemination.

Advisory board members: Elvia Arroyo-Ramirez (UC Irvine), Karl Blumenthal (Internet Archive), Brian Dietz (North Carolina State Library), Stacey Erdmann (University of Arizona Library), Courtney Mumma (University of Texas Library), and Shira Peltzman (Yale University) have tentatively agreed to serve as advisory board members on this project. Their combined expertise and deep knowledge make them invaluable as project team members and their extensive experience with community-building over the last decade provides critical guidance.

3. Diversity plan
Diverse communities of practice, advisory board members, and historical and current perspectives on born-digital stewardship are purposefully threaded throughout the design of this research project. Selected CoP sites provide complementary perspectives on emerging and

ongoing programmatic work in born-digital stewardship. The wide range of focus across communities demonstrates the challenges and difficulties in forming a coherent picture of born-digital stewardship "communities of practice." At the same time, it also highlights the potential possibilities that might emerge from focused study on diverse CoPs as distributed, cohesive, participatory networks.

Successful stewardship of born-digital materials in libraries and archives is inherently about inclusivity, because it determines "who has access, to what heritage, and which new narratives and knowledge can be generated about it" (Wallace, 2019). At the same time, committing to the health and well-being of practitioners working in libraries and archives supports inclusivity by fostering a sense of belonging and taking seriously complaints of exhaustion and burn-out. The PD recognizes that the needs of practitioners are often understudied and devalued. In commitment to building inclusivity in the field, this research pledges to document and analyze all aspects of born-digital stewardship work. Making the challenging contours of born-digital work more visible is a fundamental aspect of maintenance work and can help address the "autonomy without authority" problem mentioned by practitioners (Blumenthal et al., 2020) and contribute to ongoing conversations regarding practitioner labor.

4. Project Results *(please see Supportingdoc3.pdf for research outcomes/dissemination plans)*
Through decades of research, digital preservation scholars and practitioners have demonstrated the impact of participatory, collaborative endeavors such as professional development institutes and communities of practice, and the support they provide for advancing theory into practice. The introduction of born-digital materials, however, almost requires a fundamental reimagining of existing processes in libraries and archives. The rapid pace with which new tools, technologies, and needs are introduced threaten the ability of any one community to serve as active custodians and preservationists (Lynch, 2017).

In theory, communities of practice provide essential scaffolding for practice-driven fields and disciplines. Despite field-wide saturation of the concept throughout libraries and archives, there has been limited empirical research investigating how communities of practice provide support for practitioners navigating technical practice. An important outcome of this project is to articulate the ways in which practitioners find meaning and support through participation in CoPs, and to amplify the extensive, often invisible labor that makes born-digital stewardship complex and challenging. By sharing actionable guidance derived from practitioner experiences, the project will identify both meaningful and realistic interventions for resiliency and capacity-building efforts.

Much like preservation itself, born-digital stewardship requires continuous commitments – to innovation, participation, and evaluation. This project will build theoretical and practical interventions for addressing the current misalignments in the field of born-digital stewardship. Clearly articulating the impact and value of perceived support structures in the field (communities of practice, professional development opportunities) can help to diminish the widening gap between best-in-practice theories and existing realities. Given the increasingly distributed nature of born-digital stewardship work, the project team plans to invest significant time identifying high-impact dissemination avenues that reach multiple audiences across different institutional roles.

Schedule of completion: August 1, 2024-July 31, 2027

		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
	Project Activities												
YEAR 1	Recruit, hire, & train 1 GRA	■	■	■	■								
	Draft and revise research protocols			■	■	■							
	Conduct environmental scan and literature review					■							
	Meet with advisory board to review protocols						■						
	Submit IRBs for data collection							■	■				
	Finalize research protocols							■	■	■	■		
	Recruit, distribute, and analyze survey									■	■	■	■
	Develop and disseminate "Summative Report on Born-Digital Stewardship"										■	■	■
YEAR 2	Present findings at SAA Conference	■											
	Begin Observations at CoP Sites #1-4	■	■	■	■	■	■	■	■	■	■	■	■
	Hold Focus Group 1 session (CoP #1 and 2)			■									
	Hold Focus Group 2 session (CoP #3 and 4)							■					
	Data triangulation and analysis								■	■	■	■	■
	Disseminate findings widely	■	■	■	■	■	■	■	■	■	■	■	■
YEAR 3	Begin stakeholder interviews	■	■	■	■	■							
	Present preliminary theoretical findings at ASIST			■									
	Meet with Advisory Board						■						
	Data triangulation and analysis							■	■				
	Develop and release "Guide" + Modules							■	■	■	■	■	
	Disseminate findings widely	■	■	■	■	■	■	■	■	■	■	■	■

Digital Product Form

What types of digital products will you create?

Three types of digital content will be created and disseminated: (1) Summative Report on Born-Digital Stewardship (still images and text) and; (2) Guide to Cultivating Born-Digital Stewardship Communities of Practice (still images and text) (3) Advocacy Modules (moving image media). The project team will not be digitizing content but may include image documentation in created materials. Digital content will be created in the following formats: doc, jpg, pdfs, and mp4s. Outputs will be designed with accessibility incorporated and meet minimum compliance standards. For example, the webinar will adhere to the American Disability Act (ADA) guidelines for accessible online content creation and primers will be distributed in PDF format and comply with PDF/A-1a. Assets will be described using the Dublin Core metadata standard and adhere to FAIR principles to ensure reuse.

How will you make your digital products openly available (as appropriate)?

All research products will be disseminated and available for public access and use via the Carolina Digital Repository, which is housed at the University of North Carolina at Chapel Hill and the repository for the core project team. Assets will be released with a Creative Commons 4.0 license.

What rights will you assert over your digital products, and what limitations, if any, will you place on their use? Will your products implicate privacy concerns or cultural sensitivities, and if so, how will you address them?

Assets will be released to the public domain for wide distribution and reuse with a Creative Commons 4.0 license. Informed consent will be part of data collection and IRB protocol. Collected data will be kept confidentially and will be stripped of personally identifiable information to ensure privacy of participants is maintained. No individuals or institutions will be publicly identified in the reporting of project findings. Under the terms of collection agreed with project partners, data will be destroyed upon project completion.

How will you address the sustainability of your digital products?

All three assets (Summative Report, Guide to Cultivating CoPs, and Advocacy modules) will be widely accessible and available for public access. As a preventive measure, the PD will assess the hosting locations at the close of Y2 to ensure continued trustworthiness and integrity. Additionally, the project team will create at least one copy of each asset for storage at the Center for Open Science's OSF public repository. Dublin Core metadata will be entered and stored on an excel spreadsheet that will be uploaded to the OSF as an additional resource component.

Data Management Plan

Identify the type(s) and estimated amount of data you plan to collect or generate, and the purpose or intended use(s) to which you expect them to be put. Describe the method(s) you will use, the proposed scope and scale, and the approximate dates or intervals at which you will collect or generate data.

The project team expects to collect or generate the following types of data: survey responses (year 1), thick description observations of monthly meetings and/or forums (year 2), focus group session transcripts (year 2), institutional documentation (years 2 and 3), and interview transcripts (3). Collected data will be transcribed and analyzed using a grounded theory approach to thematic analysis and triangulated throughout the research process.

Will you collect any sensitive information? This may include personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information. If so, detail the specific steps you will take to protect the information while you prepare it for public release (e.g., anonymizing individual identifiers, data aggregation). If the data will not be released publicly, explain why the data cannot be shared due to the protection of privacy, confidentiality, security, intellectual property, and other rights or requirements.

Data collected will be kept confidentially and will be stripped of personally identifiable information to ensure privacy of participants is maintained. No individuals or institutions will be publicly identified in the reporting of project findings. Under the terms of collection agreed with project partners, data will be destroyed upon project completion.

What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data? How can these tools be accessed (e.g., open-source and freely available, commercially available, available from your research team)?

N/A

What documentation (e.g., consent agreements, data documentation, codebooks, metadata, and analytical and procedural information) will you capture or create along with the data? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the data it describes to enable future reuse?

Collected documentation will be stored on the PD's laptop and remain password protected. All research components will be managed using an excel spreadsheet to maintain associations. At the conclusion of the project, raw data will be destroyed.

What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project? If relevant, identify the repository where you will deposit your data. When and for how long will data be made available to other users?

The raw data will be destroyed upon project completion. Coded analysis and memos will remain protected by password on the PD's computer. The Carolina Digital Repository will host the

Summative Report on Born-Digital Stewardship, the *Guide to Cultivating Communities of Practice*, and *Advocacy Modules.* This data will be available for as long as is feasible but a minimum of ten years is expected.

When and how frequently will you review your Data Management Plan? How will the implementation be monitored?

The data management plan for this research will be reviewed annually as part of the monitoring and review of project milestones, work plans, and schedule of completion. The PD will oversee all data management related activities.