

Project Abstract

The UCLA Department of Information Studies seeks an National Forum Grant, as part of the Laura Bush 21st Century Librarian Program, under the category of programs to build institutional capacity. The project will leverage UCLA's established strengths in archives, informatics, and media preservation education so as to address the dramatic growth of audiovisual evidence generated by widespread deployment of surveillance cameras, smartphones, and bodycams in law enforcement. This explosive growth signals new and emergent intersections of policy, technology and record-keeping in contemporary society, with a corresponding obligation to (a) identify areas of critical need and skill development for information professionals in law enforcement agencies, libraries and archives alike; and (b) build institutional capacity for education that addresses national priorities related to open data and information professionals' management of digital information across national platforms. To do so, this project will bring together leaders from LIS education, records management, law enforcement, civic governance, and policymaking communities to define the challenges of, and set specific priorities for, the management and preservation of new forms of audiovisual evidence. The project will be implemented over one year (May 2016-April 2017) focusing on three distinct activities:

1. The National Forum will take place as a three-day collaborative workshop (tentatively planned for August 2016), with approximately 25 participants drawn from a broad range of stakeholder groups, including academics working in the field of information science and audiovisual archives, law enforcement professional groups, police forces, media, and activist groups working with video evidence;
2. Following the National Forum, the Project Directors will draft and circulate a whitepaper to summarize the findings and recommendations of the workshop. The whitepaper will delineate key directions for the field, including identification of core competencies and fundamental skills; design of individual courses or summer institutes; proposals for scalable, transferable curricula and program models for conveying critical skills to information professionals; and identification of priorities for continued research and collaboration;
3. Finally, the Project Directors will seek further funding (from IMLS and other sources) to implement the recommendations of the National Forum for capacity building, including: recruitment fellowships for graduate study in audiovisual evidence management at the Master's or PhD level; support for new professional certifications; and continuing education courses aimed at people now working in law enforcement or those planning transformative careers in that field.

Anticipated outcomes include identification of core competencies for managers of audiovisual evidence; creation of a concrete plan for specialized training audiovisual evidence management; and development of scalable, transferable model curricula. The National Forum will address issues of interoperability, sustainability, and preparedness critical to the development of a National Digital Platform. The Forum will also facilitate information exchange and radical collaboration with key stakeholders--notably, law enforcement and criminal justice practitioners--with whom the LIS field has previously had little contact, and open new areas of research and professional possibility for LIS graduates. Success of the project will be evaluated through a survey of National Forum participants and focused interviews with key stakeholders.

On the Record, All the Time: Setting an Agenda for Audiovisual Evidence Management

1. Statement of Need

Law enforcement agencies are increasingly information-centered and data-driven bodies (President’s Task Force on 21st Century Policing, 2015). They have also been among the first institutions to encounter and grapple with the implications of large-scale deployment of new recording technologies—whether ubiquitous surveillance cameras continuously recording public and private spaces, bystanders to incidents uploading smartphone-generated videos to YouTube, or, increasingly, police officers documenting their every interaction with citizens with the help of body-worn cameras. Indeed, throughout 2015, newspaper headlines featured a slate of continuing high-profile encounters between citizens and law enforcement, often resulting in fatalities, and often documented through widely circulated bystander, surveillance camera, or police-generated video.

The spread and extraordinary growth of these recording capabilities poses significant new challenges to the fulfillment of these agencies’ public mandate for transparency and accountability. In one particularly telling example, in November 2014, broad-based open records requests filed by an anonymous Seattle citizen nearly derailed police departments’ pilot projects for body-worn cameras statewide (Miletich and Sullivan, 2014). The activist had requested, among other records, all copies of all dashboard and bodycam footage recorded by the Seattle Police Department—a staggering quantity of data which would require comprehensive redaction prior to release in order to protect sensitive information. Faced with a legal duty under the state’s Public Records Act to produce the requested data, but potentially crippled by the financial, technical, and staff burdens this would impose, the department negotiated a compromise: if he agreed to withdraw his requests, the police agreed to work with the activist on “ways to use technology to increase transparency,” including holding a hackathon to design new tools for efficient redaction and plans to pre-emptively release some footage online without sound. (Sullivan, 2014)

Whether dramatic, as with recordings of police incidents, or more mundane, as with the explosion of labor and paperwork generated by such recordings, these examples highlight new and emergent intersections of policy, technology and record-keeping in contemporary society. Multiple audiences and communities are creating digital video records in unprecedentedly large quantities, and multiple audiences and communities will interpret and use these recordings in unprecedented ways in the future. As the imminent deployment of bodycams by police departments nationwide brings us one step closer to a society where we are on the record all the time, we must give thought not just to the immediate data management and security needs that result from these new recording regimes, but who will manage the resultant records for the long term, and how. This proposal seeks to actively address these issues by engaging together the LIS community and the range of stakeholders—law enforcement agencies, advocacy groups, vendors, media, etc.— that are already involved in the design, deployment, and control of new recording technologies.

The role of LIS and other education programs

Some LIS, media studies, and criminology programs in North America have begun to address evidence in their curricula. In 2010, for example, the University of British Columbia’s School of

Library, Archival, and Information Studies (UBC SLAIS), UBC Faculty of Law, and Vancouver Police Department's Computer Forensics Division collaborated on a Digital Records Forensics research project. Goals of the project included "the integration of digital forensics with diplomatics, archival science, information science and the law of evidence," and proposed outcomes included "development...of an interdisciplinary graduate degree program." (Duranti and Endicott-Popovsky, 2010) As of this writing, UBC SLAIS occasionally offers one related course, ARST 556H: Digital Diplomatics and Digital Records Forensics (ARST 556H, n.d.), but no related degree program is yet in place. The University of Colorado Denver's National Center for Media Forensics currently offers a MSc in Recording Arts with emphasis in Media Forensics (UC Denver, n.d), while the University of Maryland offers an online MS in Digital Forensics & Investigations (UMUC, n.d.). Among iSchools, the University of North Carolina's School of Information and Library Science is notable for hosting the DigCCurr Professional Institute, a week-long continuing education workshop on digital curation. Other institutions including for-profit colleges and trade schools offer certificate programs or courses of study in forensic science, digital forensics, and criminal justice.

On the other side of the equation, law enforcement personnel, including forensic investigators and property and evidence managers, have become increasingly professionalized with the establishment of national groups such as the American Society of Crime Lab Directors (ASCLD), the International Association of Property and Evidence (IAPE), and statewide property and evidence management associations. Certification, professional training and continuing education, outreach, and cooperation with judicial bodies are among the functions of these groups—for example, the Public Agency Training Council (PATC), offer continuing education workshops for criminal justice practitioners; these cover a wide range of topics, from comprehensive training on the AR-15/M16 assault rifle to "Emerging Legal Trends: Body Cameras, Citizen Recordings, and Social Media." (PATC, 2015) As well, police departments are increasingly open to partnering with other entities in these efforts, and programs including the Department of Justice's Community Oriented Policing Services (COPS) and Office of Justice Programs have highlighted evaluation and ethical implementation of body-worn cameras in their funding priorities.

What remains to be done

All of these programs and courses are focused on forensic analysis or authentication and use of digital evidence within a fairly short time span. To date, no degree programs or professional organizations have comprehensively identified, let alone addressed, the emergent core-skills training and continuing education needs of information professionals who will be working with evidentiary recordings over the long term. Indeed, while archivists and audiovisual preservationists are focused on the organization and long-term access to recordings with evidentiary value, they have not been strongly connected with legal evidence practitioners. And despite the clearly delineated duty to preserve legal evidence for statutory retention periods that may range from just a few months to perpetuity (in the case of capital crimes), those working in the fields of law enforcement and criminal justice have likewise had little engagement to date with the archives and preservation community. When this interaction occurs, it has tended to be at the point when decades-old law enforcement records (crime scene photographs, training materials, etc.) are transferred to municipal archives or county historical collections; faced with operational pressures, few police agencies devote resources to maintaining their own archives or institutional histories.

Yet, as we approach the 30th anniversary of motorist Rodney King’s apprehension by LAPD officers, we are reminded that footage of the incident was not only crucial to the use-of-force trial of the arresting officers, but has proliferated through all visual media and taken on an iconic meaning far removed from their original context. We are also approaching the 25th anniversary of the Innocence Project and its network of associated groups, which have exonerated over 330 wrongfully convicted individuals thanks to advances in DNA testing. DNA evidence testing has advanced so greatly, in fact, that retention periods for biological evidence have been retroactively extended from a few years to many decades. In both instances, time has shown that evidence in many forms has unanticipated utility and users, and a far longer useful lifespan than originally anticipated. Samples and files that might once have been purged are now retained, imposing new burdens on staff time and storage space. It is highly likely that video files now regarded as ephemeral or disposable will have a much longer useful life than anticipated, along with dynamic needs for secure management, storage, and ethical use.

Comprehensive review of the literature and existing curricula on either side of this divide brings us only so far. Moving forward will require direct dialogue among stakeholders, evaluation of needs and capacities, and seeking consensus on future directions. This project is unique in its goal of bringing together, for the first time, experts in a number of fields whose interests are aligned, but whose mutual needs have not been carefully evaluated to identify overlap.

Our project’s approach and focus

We will assess, from multiple angles, the creation and use of audiovisual media as evidence, with body-mounted cameras used by law enforcement agencies as the most current and pressing (but by no means the only) instance. We will focus less on the specific, tactical questions these recordings raise related to forensic analysis and admissibility, and more on the broader, strategic issues of data management, long-term retention, authenticity, access, and the potential future uses of those recordings in a variety of contexts. The National Forum we propose would address a simple question: *“What will people working with large volumes of video data now, and in the future, need to know and do?”* Having identified those core competencies, we would propose optimal methods and avenues for their delivery.

The need for this project, as well as its wider applicability, is evident from discussions with identified stakeholders, a review of professional literature, and recent press coverage. In each of these contexts, stakeholders raise concerns about the costs of data storage; privacy and data security implications of long-term retention of video files; questions about how stored video may be accessed and used, both internally and by public audiences; and even the practical matters of media obsolescence and changing file formats. Here as elsewhere, “the technology to create media [is] moving faster than the technology to manage and store it.” (IMLS, 2015) These concerns are not unique to users of body-mounted camera systems; rather, they echo many of the issues related to interoperability, sustainability, and preparedness raised by IMLS National Digital Platform (NDP). The Focus report lists “radical and systemic collaboration” as a key theme for digital platform development, and likewise, the 2015 *Interim Report of the President’s Task Force on 21st Century Policing* urges police to “[interact] with a more diverse group of professionals ... establish[ing] a valuable network of contacts whose knowledge and skills differ from but complement their own” (p. 55). There is now, and will continue to be, significant need for training, education, and standards-setting for the growing number of information professionals who will be

working with audiovisual evidence. Collaborative work with people and agencies from multiple communities, such as we propose with this National Forum, is the essential first step toward preparing a generation of practitioners to carry out that responsibility effectively.

2. Impact

Building capacity for audiovisual evidence management

The anticipated benefits of this project include the creation of a concrete plan for development of specialized training in management of audiovisual evidence, as well as creation and broad dissemination of findings from the symposium in whitepaper form. These findings will include a comprehensive review of relevant literature, delineation of core competencies for those charged with creating and keeping evidentiary recordings, and model syllabi and curricula that can be adapted for use in education and standards-setting.

The National Forum we propose will build capacity at UCLA, and in the IS field more broadly, in three ways: First, we will discuss new and emergent needs for audiovisual evidence management, and identify specific areas of existing LIS and criminal justice curricula where enhancements and expansion can help meet those needs. Second, we will incorporate the perspectives of key stakeholders—notably, law enforcement and criminal justice practitioners—with whom the LIS field has previously had little to no information exchange, and establish crucial relationships with local agencies who may serve as partners in education and program development going forward. And finally, by addressing as a case study the deployment of body cameras and management of their resultant data, we will bring into focus a range of broader challenges that the 21st century information professional must address. These include, but are not limited to: the diversity and complexity of digital file formats; economic dimensions of short-, medium- and long-term digital preservation; cloud-based preservation and access strategies (benefits and convenience vs. security, longevity, and control); critical evaluation of vendor-driven solutions vs. open-source or locally-generated applications; and ethical dimensions of surveillance and audiovisual recording in an increasingly networked world (including social media, Internet of things, instantaneous communication, etc.). Focusing on these challenges will allow us to foreground the skills and continuous learning opportunities required for information professionals to improve their computational literacy with respect to the management of audiovisual evidence.

Building bridges and new paths for LIS graduates

The delineation and refinement of audiovisual evidence management as a rich new area of information studies will allow LIS programs to carve out a claim on professional preparation for practitioners. It will also transform LIS practice, by explicitly positioning evidence collections as records on the archival continuum—bodies of materials and data that are created in the public interest, and which have a value to their communities of origin that persists beyond the immediate and procedural and extends into the realm of the historical and cultural. In doing so, this project will help bridge the gaps between law enforcement, public and information policy, evolving technologies, and heritage preservation.

While it is UCLA's intention to take a leading role in carrying out these curricular models, we recognize that the need for specialized instruction and professional education in this realm is likely to be far greater than any single institution can meet. Among other considerations, the demand for skilled workers to administer recording programs in law enforcement agencies is

potentially enormous. Recent updates on the LAPD’s proposed bodycam project report an anticipated need for over 120 new staffers to manage the project and its resultant data (Stoltze, 2015). Although Los Angeles is one of the nation’s largest metropolitan areas, we feel it is safe to expect a proportional demand for video evidence specialists and information managers nationwide as bodycam use becomes more widespread. This National Forum will help UCLA and other iSchools to start partnering with regional and national law enforcement groups, and to put graduate curricula and continuing education programs related to audiovisual evidence management in place as soon as possible, creating a mutually beneficial community of educators and practitioners.

Ensuring impact across stakeholder groups

UCLA IS is an active member of ALISE and a founding member of the iSchool Caucus. We are recognized within and strongly connected to an international network of library and information science educators, and we are confident of our ability to reach our colleagues in the LIS community with the results of this National Forum project. However, our goals for this project require that we establish new relationships with law enforcement agencies and other stakeholder groups which have minimal awareness of the LIS field. We wish to shift the perception of evidence collections, broadly considered—to make them more visible as public resources, and acknowledge that they are created in the public interest, shaped by public policies, and managed by public employees. Applying archival approaches to the evidentiary recordings currently being created increases the likelihood of making sensible use of them as public resources in the future.

Our evaluation plans therefore include follow-up not only with LIS educators who might implement the curricula and educational initiatives put forward in the project whitepaper, but with the law enforcement agencies, technology vendors, activists, and others who will also be affected by an archival approach to audiovisual evidence management. Feedback and input from each of these stakeholder groups will be crucial in determining the most effective next steps—whether these are the development of pilot degree, continuing education, or certificate programs, recruitment of scholars and support for research in key areas, or development of collaborations and partnerships that will address the most pressing needs of the field and advance the work begun with the National Forum.

3. Project Design

Goals and objectives

The overarching goal of this project is to bring multiple stakeholders together in a collaborative workshop assess the requirements for the preservation of video images captured by body-worn cameras (and, by extension, other forms of recorded evidence). These discussions will seek to answer three questions: (1) What does the ideal model for audiovisual evidence management look like from multiple stakeholders’ perspectives? (2) What do people need to know in order to work with the new kinds of collections and materials produced by the spread of video recording technologies; and (3) How do we deliver that knowledge through curriculum and training (e.g., through continuing education, specialization within existing programs, a post-graduate certificate, or other models)? The discussions will provide the materials for a whitepaper that identifies key directions for the field, including enumeration of core competencies and fundamental skills; design of individual courses or summer institutes; scalable and transferable curricula and program models for developing those skills among information professionals; and identification of

critical areas for continued research and collaboration. The National Forum findings will be widely circulated and serve as the foundation for seeking additional funding from the IMLS so as to implement the whitepaper's recommendations and further build capacity in this area.

Main activities

Three main activities will be conducted within the period of the grant (May 1st 2016-April 30th 2017): (1) organizing and conducting the National Forum; (2) drafting, circulating, and evaluating a whitepaper that will summarize the discussions held at the forum; and (3) preparing further funding proposals to the IMLS and other funding agencies to implement the recommendations of the whitepaper. These activities will be implemented by the Project Directors (Jean-François Blanchette and Snowden Becker) and a Graduate Student Researcher who will provide logistical support (*see Schedule of Completion for timeline*).

Activity 1: The National Forum will take place as a three-day collaborative workshop (tentatively planned for August 2016), with approximately 25 people participating. Participants will be drawn from a broad range of stakeholder groups, including academics working in the field of information science and audiovisual archives, law enforcement professional groups, police forces, media and activist groups working with video evidence (*see Preliminary work and planning below*). In early June 2016, once the date of the forum and final list of participants have been confirmed, we will identify 5 or 6 areas of discussion (e.g., curriculum review, core competencies, technical futures, ethical issues). We will assign chairs and 4-5 members to working groups that will focus individually on each topic. The Project Directors and working group chairs will set agendas, work plans, and gather reference materials to maximize in-person time for National Forum participants. During the meeting itself, working groups will present preliminary findings to plenary assemblies, convene during the workshop period in breakout groups, and pool their work in the final plenary sessions to determine final recommendations.

Activity 2: Following the National Forum meeting, the Project Directors will draft and circulate a whitepaper to summarize the findings and recommendations of the workshop. The whitepaper will delineate key directions for the field, including identification of core competencies and fundamental skills; design of individual courses or summer institutes; proposals for scalable, transferable curricula and program models for conveying critical skills to information professionals; and identification of priorities for continued research and collaboration. The whitepaper will be widely circulated for feedback to inform future phases of the project

Activity 3: The final activity will consist in seeking further funding (from IMLS and other sources) to implement the recommendations of the National Forum for capacity building, including, for example: recruitment fellowships for graduate study in audiovisual evidence management at the Master's or PhD level; support for new professional certifications; and continuing education courses aimed at people now working in law enforcement or those planning transformative careers in that field.

Evaluation

To evaluate the National Forum itself, we will post an online survey at the end of the meeting eliciting feedback from forum's participants (*see draft evaluation survey in supplementary documents*). The survey will ask, among other things, whether the forum helped to cultivate

relationships between different stakeholder groups, whether participants would have liked to see other stakeholder groups at the table, and whether the structure of the meeting proved effective in achieving its goals.

To evaluate the success of our main deliverable, the whitepaper, we will avoid surveys (which typically have low response rates), and instead address ourselves directly to our main stakeholders, including professors teaching audiovisual preservation, law enforcement administrators, and representatives from civil society (*see list of individuals we would especially target for recruitment for the evaluation phase in supplementary documents*). We will share the report/whitepaper with them and conduct semi-structured interviews that will elicit feedback with respect to whether (a) the proposed curricula is of value; (b) it draws from new perspectives; and (c) it addresses and conveys new digital skills that will be of value to 21st century information professionals. While this evaluation method is more time-consuming, it will allow us to build further momentum, make additional contacts, and obtain nuanced feedback from the stakeholders most likely to help ensure the project's impact. We will be conducting this evaluation starting January 2017 until the end of the project in April 2017.

Preliminary work and planning

In June 2015, the Dean of the UCLA GSE&IS awarded us funding to hire a GSR to assist with drafting the grant proposal. With the GSR's help, we conducted a preliminary, cross-disciplinary literature review and began compiling a comprehensive list of resources and publications (*see current project bibliography in supplementary documents*).

In addition, starting in September, we began reaching out to stakeholders to identify potential participants for the National Forum. We have gathered 9 formal letters of support (*see letters in supplementary documents*) from a broad range of stakeholders: (a) UCLA administrators (Jonathan Furner, Shira Peltzman) confirming that the project is in line with the overarching goals of the Department and the University, and will be provided with the necessary institutional support; (b) scholars and practitioners who specialize in digital and audiovisual preservation (Howard Besser, Karen Gracy, Cal Lee, Linda Tadic) confirming the relevance and impact of the proposed project on the field; (c) institutions providing training and certification for experts in the production, forensic analysis, and evaluation of recorded evidence (LEVA); (d) advocacy groups and thought leaders concerned with records management in the digital era (Information Governance Initiative/Jason Baron); activist organizations promoting the use of video evidence to document human rights violations (Witness). In addition, we have received strong indications of support and interest in participation from the International Association of Chiefs of Police (IACP), an influential criminal justice professional group who will host (and have invited us to attend) its own symposium on bodycams in Washington DC in January 2016. These individuals and institutions not only represent major stakeholders in the current debate surrounding video evidence, but the letters they have written are eloquent in their support and enthusiasm for our project and in recognizing the urgent need it addresses.

In addition to these formal expressions of support, we have also discussed our project with several representatives of local and national law enforcement agencies: Ofc. Ed Lavalle, Body Worn Camera Administrator for the San Diego PD, which is in the process of deploying over 600 Axon cameras; Ofc. Jim Stover and Sgt. Dan Gomez of the LAPD's Tactical Technology Section, who will

be supervising the rollout of one of the nation's largest (7,000 units) bodycam programs; and Lt. Shan Davis, Beverly Hills PD, which is still in the exploratory/pilot phase with their body camera program. We are also in ongoing conversation with Walter Bruehs, Supervisory Photographic Technologist with the FBI's Forensic Audio, Video, and Image Analysis Unit, a featured speaker at the AMIA Digital Asset Symposium in 2015. Finally, Nicole Santa Cruz, the journalist responsible for the Homicide Report at the LA Times, has offered her assistance. The interest these individuals have expressed gives us considerable confidence that, with funding secured, we will have no difficulty attracting a balanced participant group, including representatives from police forces, vendors, and activist organizations.

4. Project Resources: Personnel, Time, Budget

Personnel

The key staff for this project are: (1) Jean-François Blanchette, Project Director, Associate Professor, UCLA IS Department; (2) Snowden Becker, co-Project Director, Program Manager for Moving Image Archive Studies, UCLA IS Department; and (3) a Graduate Student Research assistant.

Blanchette and Becker will have shared oversight and responsibility for the intellectual organization and practical execution of the project. Their common research interests and experience are centered on issues of electronic media, archival practice, evidence, and infrastructure: Blanchette is Associate Professor in the IS Department, the author of *Burdens of Proof* (MIT Press, 2012) and co-editor of *Regulating the Cloud* (MIT Press, 2015). He teaches courses on electronic records, information governance, and open data. Becker manages UCLA's graduate degree programs in media archiving and preservation. She earned certification from the Texas Association of Property and Evidence Inventory Technicians in 2007, and interned in the Major Crimes Unit of the Travis County Sheriff's Office in 2010-2011. She is currently completing a doctoral dissertation at the UT Austin School of Information entitled *Keeping the Pieces: Evidence management and archival practice in law enforcement*. Their collaboration on this National Forum will advance both their individual scholarly research agendas and the social justice mission of the Department of Information Studies. Participants in the National Forum stand to gain from their involvement through the creation of new professional contacts, research and resource development in the project working groups, and knowledge exchange with a wide array of professionals with shared interests and concerns.

Both Blanchette and Becker have well-developed and highly interdisciplinary professional contact networks, which will support recruitment of participants and dissemination of project outcomes. Both also have considerable experience in project organization and planning, including coordination of symposia and professional meetings similar in size and scope to the proposed National Forum. The GSR will provide the co-directors with further support for research, project organization and logistics, and production of deliverables.

Time

The activities relative to the project fall within Blanchette and Becker's duties as Associate Professor and Project Manager in the Department of Information Studies. Both will contribute the time required in each project phase, including project planning, execution, and production of final deliverables. These commitments will be balanced with their other professional duties through

skillful time management. The GSR will be hired for 20 hours per week from summer 2016 to the end of the Winter quarter 2017, which will ensure support for the co-directors from planning the Forum through production of the whitepaper, program evaluation, and final reporting.

Budget

The requested funds will cover the following financial needs (*for additional details, see also Project Design section and Budget Justification document*):

1. Costs relative to the organization of the meeting, including transportation, lodging and food for 25 participants and rental of meeting space
2. Costs relative to dissemination of findings, including creation and maintenance of website, event photography, and videotaping of interviews and travel to one national and one international conference (AMIA and ASIST) to present findings
3. Costs relative to project staff, including salary/tuition for one GSR for three quarters and one summer month of salary and benefits for Blanchette

Finances are managed by funds managers within the budget office at the Graduate School of Education and Information Studies (GSE&IS), which routinely provides services for contracts and grants for more than 60 faculty and researchers within the School. IS Department administrators provide additional help with reimbursements. Facilities to support the project are available within GSE&IS, including meeting rooms, communication and computing support, and office supplies. Conference facilities appropriate for a meeting of this size are available at several conference centers on and near the UCLA campus.

5. Diversity Plan

Body worn camera initiatives are still, for the most part, in their infancy, but there is increasing pressure for their adoption as a means of increasing transparency and accountability, especially with respect to minority populations adversely and disproportionately affected by interaction with police in the U.S. Timely intervention, inclusion of diverse voices, and advocacy on the part of information professionals for long-term planning at this critical time will significantly shape the future management and preservation practices of these documents. This project recognizes the actual complexity of issues arising from the capture and subsequent management of massive amounts of video footage, and seeks to involve multiple constituencies and voices in addressing those issues. A National Forum on bodycams and other forms of audiovisual evidence can positively impact the use of public records by underrepresented communities, establish trust with information professionals, and bolster confidence in the accessibility and authenticity of public records. UCLA IS is uniquely situated to helm such a project, as our strong and documented commitment to social justice and community-oriented work and established expertise in the areas of informatics, media preservation, and community-based archiving positions us well to communicate across institutional boundaries.

National Forum participants from multiple academic fields will bring unique disciplinary perspectives to the topic of audiovisual evidence management. We will also solicit participation from law enforcement leadership and professional groups including IACP, IAPE, PERF and LEVA, each of whom are advocates for best practices and training priorities. Community leaders, policy makers, and public watchdog organizations such as the ACLU, WITNESS, I-Witness, and the

Innocence Project have priorities and concerns related to bodycam technologies that can differ significantly from those of law enforcement. We will also include prominent designers and vendors of products and evidence management systems for law enforcement use, such as Viewu, Taser International and Q-Tel. Design specifications and technological affordances have the potential to limit or expand capabilities and present unique challenges to professional and legal standards governing public records. IMLS support would allow these disparate (and sometimes adversarial) stakeholders to come together and foster solutions-oriented discussions that transcend disciplinary boundaries.

Through the stated goal of developing curriculum for Information Studies professionals, this project also has a potential long term effect of attracting students to LIS-based educational programs from two distinct directions: those with an interest in information and/or media preservation and career goals that might include evidentiary work, and those who are currently working in fields like law enforcement or criminal justice where large-scale recording is becoming the norm, and wish to pursue advanced study in theories and management of information.

6. Communication Plan

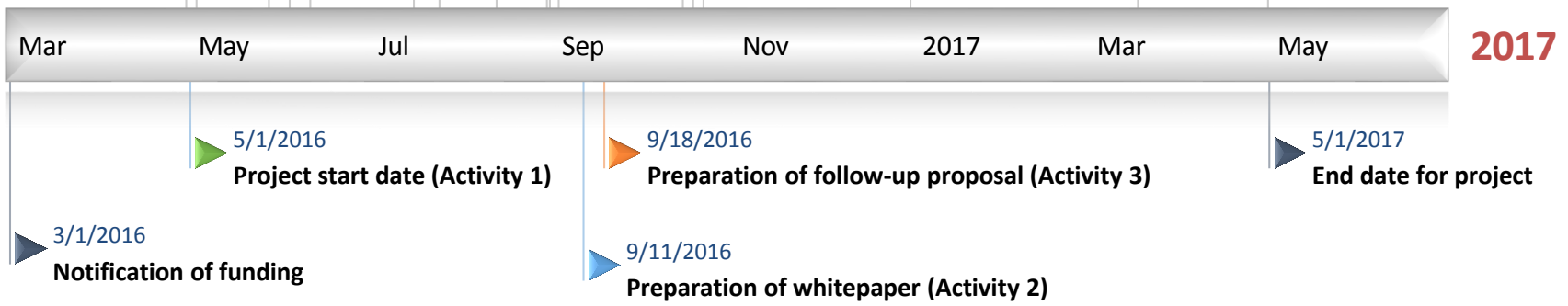
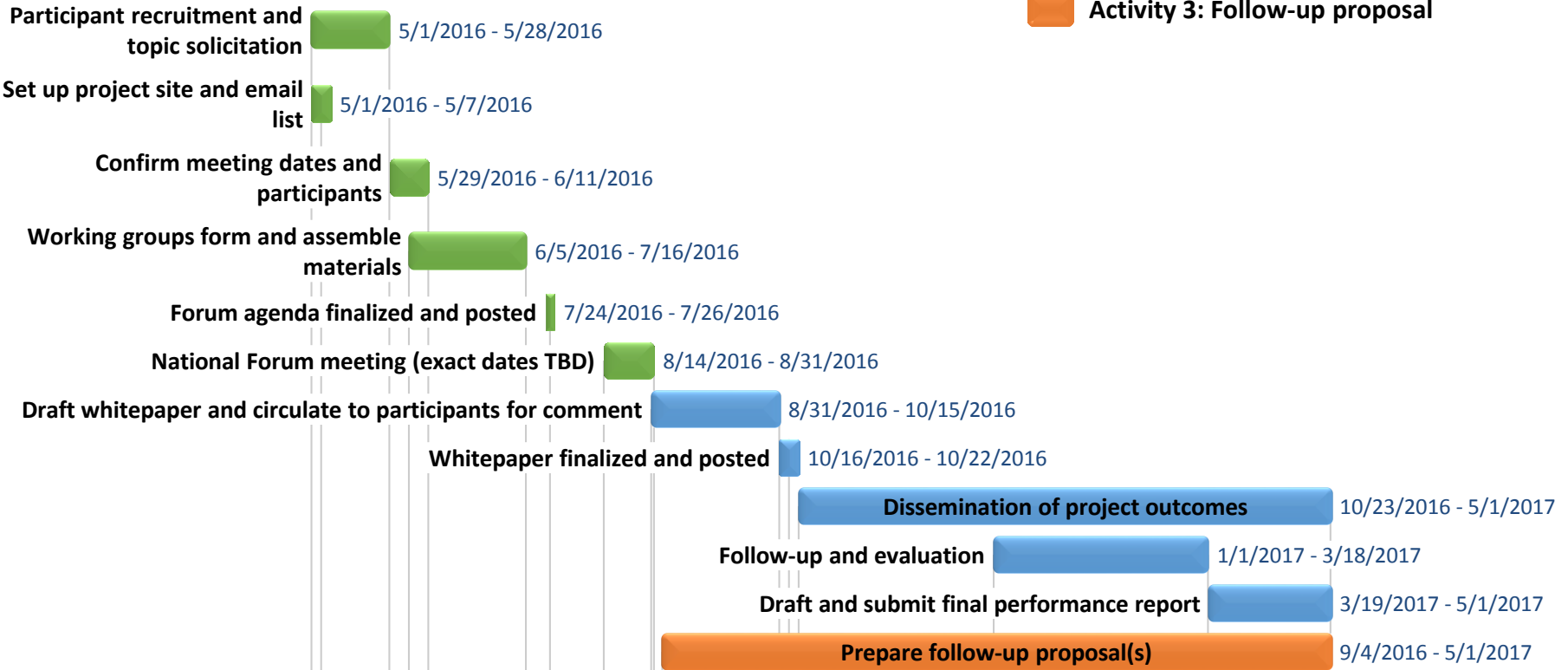
Upon notice of funding approval, project staff will mount a dedicated website for the project. We will also establish social media accounts for the project on major platforms (Twitter, Facebook, etc.). The web site and social media will serve as a primary point of contact and information-sharing in the lead-up to the National Forum meeting, and will be used afterward for disseminating research products, project updates, and related news to the broader LIS community. Efforts will be made to solicit questions, challenges and concerns via our website and social media outlets, particularly during the planning process and lead-up to the National Forum. This will enable project participants to incorporate feedback from more constituents than can productively participate in the Forum itself into the agenda for the project, responding directly to community concerns and needs.

To share project findings effectively and broadly to all stakeholders, the Project Directors and GSR will propose reports to various professional conferences, including but not limited to: ASIST, AMIA and LEVA conferences in November of 2016; ALISE in January of 2017; iConference and Digital Forensics, Security and Law in May 2017; the Archival Education and Research Institute in July of 2017 and the SAA annual meeting in August of 2017. These presentations will publicize the National Forum findings, sustain information exchange, and help gauge community impact. As this project anticipates results that will impact public interaction with law enforcement records and agencies, project staff will also produce a press release upon the completion of the project. This press release can be used as a template for participating stakeholders to build awareness among their networks, support outreach to news and media outlets, and contact local communities.

Additionally, as this project seeks to expand the curricula of LIS programs, reports will be sent to the Departmental Chairs of the current 64 registered iSchools during the evaluation phase. Project staff will collectively author one or more publications for submission to peer-reviewed, open-access journals featuring the findings of the project as well as future research directions. UC policy emphasizes open access for all faculty publications. UCLA maintains its own eScholarship repository to support widespread, free public access to the research product of the University; the National Forum whitepaper and any related publications will be submitted to this repository.

Schedule of Completion

- Activity 1: Plan and conduct National Forum
- Activity 2: Whitepaper prep and circulation
- Activity 3: Follow-up proposal



DIGITAL STEWARDSHIP SUPPLEMENTARY INFORMATION FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded research, data, software, and other digital products. The assets 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. However, applying these principles to the development and management of digital products is not always straightforward. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and best practices that could become quickly outdated. Instead, we ask that you answer a series of questions that address specific aspects of creating and managing digital assets. 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

If you propose to create any type of digital product as part of your project, complete this form. We define digital products very broadly. If you are developing anything through the use of information technology (e.g., digital collections, web resources, metadata, software, or data), you should complete this form.

Please indicate which of the following digital products you will create or collect during your project
(Check all that apply):

	Every proposal creating a digital product should complete ...	Part I
	If your project will create or collect ...	Then you should complete ...
<input checked="" type="checkbox"/>	Digital content	Part II
<input type="checkbox"/>	Software (systems, tools, apps, etc.)	Part III
<input type="checkbox"/>	Dataset	Part IV

PART I.

A. Intellectual Property Rights and Permissions

We expect applicants to make federally funded work products widely available and usable through strategies such as publishing in open-access journals, depositing works in institutional or discipline-based repositories, and using non-restrictive licenses such as a Creative Commons license.

A.1 What will be the intellectual property status of the content, software, or datasets you intend to create? Who will hold the copyright? Will you assign a Creative Commons license (<http://us.creativecommons.org>) to the content? If so, which license will it be? If it is software, what open source license will you use (e.g., BSD, GNU, MIT)? Explain and justify your licensing selections.

In accordance with the University of California copyright policy, copyright will be retained by the content originator. Since our web content will include both individual and collective work, copyright will follow accordingly. We will assign the Creative Commons Attribution-NonCommercial 4.0 International License in order to facilitate dissemination and use of our work products with proper attribution.

A.2 What ownership rights will your organization assert over the new digital content, software, or datasets and what conditions will you impose on access and use? Explain any terms of access and conditions of use, why they are justifiable, and how you will notify potential users about relevant terms or conditions.

Access to all work products will follow the University of California Open Access Policy, adopted on July 24, 2013, which ensures that all publications by faculty of the University of California are freely available to the public through the eScholarship repository. Conditions of use will be derived from the aforementioned Creative Commons License. These terms and policies will be included and highly visible on our website.

A.3 Will you create any content or products which may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities? If so, please describe the issues and how you plan to address them.

We will circulate a pre-publication copy of our white paper to all forum participants so that they can raise any concerns with respect to proper attribution and citation.

Part II: Projects Creating or Collecting Digital Content

A. Creating New Digital Content

A.1 Describe the digital content you will create and/or collect, the quantities of each type, and format you will use.

We will be producing a website that will act as a hub for information leading up to, throughout, and after our meeting. The website will include event and venue information, materials for pre-meeting work and coordination, a blog maintained by the project originators and will also serve as a publicly available site through which to access our published materials.

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

We will develop the website in conjunction with the UCLA Graduate School of Education and Information Studies Education and Technology Unit. They will provide software support as well as web hosting services throughout the lifetime of the site.

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

The website will use accessible and consistent digital file formats including HTML and high quality images in JPEG.

B. Digital Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan (i.e., how you will monitor and evaluate your workflow and products).

The website will be updated routinely throughout the lifespan of the project. The project team will review published content, workflow, and products as needed on a consistent basis.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance (e.g., storage systems, shared repositories, technical documentation, migration planning, 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 CFR 200.461).

The website will be hosted and maintained throughout the life of the project by the GSE&IS Education and Technology Unit. Any published materials will be hosted by the California Digital Library eScholarship repository in accordance with the University of California Open Access policy.

C. Metadata

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

Descriptive metadata (authorship, etc.) for the whitepaper will be generated at the time of submission to the UC eScholarship repository. Technical, preservation, and administrative metadata will be automatically generated by the eScholarship repository.

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

Preservation and maintenance of the metadata will be ensured by the eScholarship repository.

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of digital content created during your project (e.g., an API (Application Programming Interface), contributions to the Digital Public Library of America (DPLA) or other digital platform, or other support to allow batch queries and retrieval of metadata).

The eScholarship repository provides appropriate mechanisms for discovery and use to both the scholarly community and the general public.

D. Access and Use

D.1 Describe how you will make the digital content 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).

Our website will be openly and publicly available through standard web browsers. No specialized requirements will be needed for accessing the material.

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

N/A

Part III. Projects Creating Software (systems, tools, apps, etc.)

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) this software will serve.

A.2 List other existing software that wholly or partially perform the same functions, and explain how the tool or system you will create is different.

B. Technical Information

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

B.2 Describe how the intended software will extend or interoperate with other existing software.

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

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

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

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under an open-source license to maximize access and promote reuse. What ownership rights will your organization assert over the software created, and what conditions will you impose on the access and use of this product? 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 any prohibitive terms or conditions of use or access, explain why these terms or conditions are justifiable, and explain how you will notify potential users of the software or system.

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

C.3 Identify where you will be publicly depositing source code for the software developed:

Name of publicly accessible source code repository:

URL:

Part IV. Projects Creating a Dataset

1. Summarize the intended purpose of this data, the type of data to be collected or generated, the method for collection or generation, the approximate dates or frequency when the data will be generated or collected, and the intended use of the data collected.
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?

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).

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.

5. What 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).

6. What documentation (e.g., data documentation, codebooks, etc.) 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?

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

8. Identify where you will be publicly depositing dataset(s):

Name of repository:
URL:

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

Original Preliminary Proposal

On the Record, All the Time: Setting an Agenda for Audiovisual Evidence Management

The UCLA Department of Information Studies (IS) seeks approximately \$94,000 in funding from the IMLS Laura Bush 21st Century Librarian Program for a National Forum on Audiovisual Evidence Management. This forum will bring together leaders from LIS education, records management, law enforcement, civic governance, and policymaking communities to define the challenges of, and set specific priorities for, the management and preservation of new forms of audiovisual evidence. The proposed program leverages UCLA's established strengths in archives, informatics, and media preservation education; incorporates perspectives from communities with which the LIS field has previously had little opportunity for intellectual exchange; will identify areas of critical need and skill development for information professionals in law enforcement agencies and libraries alike; and will build institutional capacity for education that addresses national priorities related to open data and information professionals' management of digital information across national platforms.

*"A police department that deploys body-worn cameras is making a statement that it believes the actions of its officers are a matter of public record."** As this passage from a recent report on bodycam implementation suggests, mass deployment of body-worn cameras in law enforcement will not only be transformative for criminal justice, it will also have broad impact on civil society and the historical record. It also anticipates the ever-broader deployment of recording technologies in other agencies and contexts. As sports, medicine, education, and other fields begin deploying similar recording technologies, we come ever closer to a society where everyone will be on the record, all the time. Early implementations of bodycam technology in law enforcement will be uniquely valuable as a space to explore the practical and design challenges of maintaining authenticity, integrity, and reliability for these recordings over the long term. The issues they raise of institutional accountability, personal privacy, ethical access to information, and representation in historical records are issues at the heart of archival studies and LIS, broadly conceived.

There is therefore urgent need for the development of specialized curricula and training for people working with new forms of evidence and evidentiary data, in law enforcement and beyond—particularly digital video files, records of unprecedented size and complexity. Our three-part plans for capacity-building through this National Forum start with Phase 1 (May-August 2016), a collaborative workshop to identify current and anticipated needs for information professionals in a variety of law enforcement roles (including, but not limited to, evidence management). Phase 2 (August-September 2016) includes evaluation of initial outcomes from the workshop, which is designed to generate the following products: identification of core competencies and fundamental skills; design of individual courses or summer institutes; (scalable, transferable) curricula and program models for developing those skills among information professionals; and identification of critical areas for continued research and collaboration. Building on these results, in Phase 3 (September 2016-January 2017) we anticipate seeking further funding (from the IMLS and other sources) for recruitment fellowships for graduate study in audiovisual evidence management at the Master's or PhD level, support for new professional certifications, or funding for continuing education courses aimed at people now working in law enforcement or those planning transformative careers in that field. This project will thus directly serve the IMLS National Digital

* For a selected bibliography of resources for this project, see <http://polaris.gseis.ucla.edu/blanchette/imlsbib.pdf>.

Platform's goal of establishing systematic collaboration across sectors of the LAM communities and allied institutions, and educating librarians and archivists to meet emerging needs and develop their computational literacy. It will also align with the objectives of the White House [Task Force on 21st Century Policing](#) that seeks better use of technology to increase internal accountability and decrease inappropriate use of force in police work.

Structure and budget: We envision a three-day workshop, held in summer 2016, with approximately 30 participants from the stakeholder groups listed below. After an introductory plenary, the workshop proceeds with breakout sessions of 4-6 participants each, addressing topics such as curriculum review, evaluation of key literature and resources, identification of core competencies, delivery model(s), and technical futures/challenges. To maximize in-person time, breakout groups will organize in advance of the workshop to identify chairs, set agendas, and gather reference materials. An integrative plenary on the final day will generate the essential elements of a white paper articulating the areas of greatest need and outlining model audiovisual evidence management curriculum for use in iSchool contexts and beyond. The budget will consist of \$42K for conference costs (transportation, venue, accommodations, meals); \$45K in project lead and support staff costs, incl. GSR tuition; and \$7K for project dissemination, publicity, and website.

Major stakeholder groups: We will solicit participation from faculty and researchers from multiple academic disciplines (LIS, Archival Studies, Law and Criminal Justice, Public Policy/Government, Communications, Media Studies, Journalism); Law enforcement leadership and professional groups (IACP, IAPE, PERF, LEVA, agencies deploying body-worn cameras); community leaders and policy makers (State and Federal legislators, open government advocates, civil liberties and public watchdog groups such as ACLU and Innocence Project); and vendors of products and data systems for law enforcement use (Viewu, Taser International, Q-Tel). We have already secured initial indications of support for this project from bodycam project administrators at police agencies; law enforcement professional organizations; faculty in LIS and moving image preservation programs; public advocacy agencies and others.

UCLA's IS Department: Demonstrated curricular strengths and faculty with research interests in highly relevant areas make UCLA exceptionally well-placed to lead this project. Three out of UCLA's five MLIS specializations—Informatics, Archival Studies, and Media Archival Studies—focus on theoretical and practical issues at the heart of this work. UCLA was first in the nation to offer a Master's degree program in moving image archiving and preservation, and we offer a unique array of courses in topics that could form the basis for a more focused audiovisual evidence management curriculum (including community-based archiving, data governance, digital asset management, and media preservation). The department's commitment to service learning and history of productive engagement with community partners also positions us well to develop new alliances with local agencies that are leading the nation in bodycam implementation.

Project leads: **Jean-François Blanchette** is Associate Professor in the Department, the author of *Burdens of Proof* (MIT Press, 2012) and co-editor of *Regulating the Cloud* (MIT Press, 2015). He teaches courses on electronic records, information governance, and open data. **Snowden Becker** manages UCLA's graduate degree programs in media archiving. She earned certification from the Texas Association of Property and Evidence Inventory Technicians in 2007, and interned in the Major Crimes Unit of the Travis County Sheriff's Office in 2010-2011.