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Harmony and Disharmony: Selections from the XXI International Oral History Association (IOHA) Conference in 2021.

Accelerating Innovation:
Discovery, Engagement, and Risk

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Keynote 3:
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Thank you for that introduction. I cannot tell you how much of an honor this is. I expressed to the conference organizers earlier that my only sadness is that I cannot travel to Singapore to speak with you. The COVID-19 pandemic has brought so much disruption; my hope for you all is that everyone is safe and healthy. Despite the challenges of this pandemic, I feel like this has been a model online conference, truly one of the most organized and substantive that I have attended. It has been a fantastic conference, thank you to the organizers for having me. Once again, it is a great honor to be involved and for you all to be here listening to me.

We have a great deal to cover, so I am going to just dive right in. I will be reflecting on the balance between innovation—accelerating innovation—and emerging realities being posed by technologies—the Internet, as well as artificial intelligence—and the implications on this thing that we love so much: oral history. To create a common frame of reference, I will be using the work that we are doing at the Louie B. Nunn Center for Oral History at the University of Kentucky to navigate some of the issues and reflect on some of the things that I am thinking so much about these days. I know many of you are not familiar with the work that we're doing at the Nunn Center. So, I wanted to first establish some context. I want to get through these slides as quickly as possible because I want to open the floor for discussion, as there is so much to talk about regarding what's happening with oral history technologies.

The Nunn Center is an academic oral history center that has been recording oral history interviews since 1973. In the United States, this was an active period when oral history centers located in academic institutions started popping up all around the country. We all know about Columbia University's establishment in 1948, and there were a few who followed in the two decades following, but the early 1970s witnessed the establishment of several oral history programs and centers, as oral history methodology grew in popularity. The University of Kentucky was part of that growth period. Today, many of these centers and programs have gone away. Very often, the individual who was the primary advocate for the methodology at that

institution retired or moved on, and their energy and passion for oral history were not sustained. The University of Kentucky has been strategic and very fortunate in our longevity. At the time of this lecture, we are beginning preparations for the 50th anniversary in the next few years. When I was hired in 2008, there was one position associated with oral history, and that was me, the Nunn Center director. Today, we have four full-time faculty and staff members in addition to the director: one interviewer and three archivists. We have been very successful in the last 14 years regarding demonstrating need and growing the staff. I am very proud that each employee is in a full-time permanent position. We do not have a team of interviewers that I can dispatch all over the state, all over the region, or all over the country. I have always had this dream that I have staff upstairs, who, when there is an immediate need for an oral history project, I can ring the bell and the brilliant interviewers slide down the poles and jump in Mini Coopers, and the drive off to save stories. We do not have that team of interviewers, so everything that we do is through partnerships. We are a large university, so, of course, I collaborate a great deal with the faculty and students on campus. But we also create and manage numerous external partnerships. We work with museums and libraries, churches, schools, and industries, including the horse industry and the bourbon industry, which are influential industries here in Kentucky. Because of these partnerships, our interviewing activities have greatly increased. At this moment, we have topped 15,000 interviews in our archival collection. In 2008, we had 6,000 interviews that had been recorded over a period of 35 years, so we are accelerating our project and interview growth rate.

We currently have over thirty active interviewing initiatives. Some of the active projects that we are conducting right now include the *Women in Bourbon (Whiskey) Oral History Project* and the *Black Women in Bourbon (Whiskey) Oral History Project*. We are conducting national and international projects in partnership with the national Peace Corps alumni organization to conduct the *Returned Peace Corps Volunteer Oral History Project* and the *Evacuated Peace Corps Volunteer Oral History Project*. Within the past year, we have conducted over 400 interviews just on the *Returned Peace Corps Oral History Project*. The *Evacuated Peace Corps Volunteers Oral History Project* is a COVID-focused project, interviewing some of the many Peace Corps volunteers who were evacuated because of the COVID-19 pandemic. We are just about to launch a project documenting Asian Americans and Pacific Islanders in Kentucky. We have a large project documenting student activism at the University of Kentucky during the 1960s and 1970s. We have an active project on documenting the federal judiciary in the United States and interviewing federal judges. We're conducting a project documenting the 1964 Civil Rights March in Frankfort, Kentucky, a civil rights march led by Dr. Martin Luther King. This is just a sampling of the over 30 active interviewing projects we have going at present.

Over the past 15 years, the Nunn Center has heavily prioritized access and discovery of our collections. In fact, the improvement of the discovery, access, and usability experiences to archived oral history interviews has been an obsession of mine from very early on in my career. I began my career as an oral history archivist and was frustrated by the lack of access to oral histories once interviews were archived. I remember reading a Mike Frisch quote commenting on the state of archival access to oral history, which read:

> Everyone recognizes that the core audio-video dimension of oral history is notoriously underutilized. The nicely cataloged but rarely consulted shelves of audio and video cassettes in even the best media and oral history libraries are closer than most people

realize to that shoebox of unviewed home video camcorder cassettes in so many families—precious documentation that is inaccessible and generally unlistened to and unwatched.[1]

Despite the increasing popularity of oral history methodology (interviewing) at the time, in my experience as an archivist, I had witnessed firsthand that Frisch was correct—archived oral history interviews were rarely accessed, used, or cited by researchers. Of course, there are many reasons for this, but, essentially, un-textualized audio and video make the discovery and any kind of precise access difficult, and the majority of archived oral history had remained, at the time, un-textualized.

There are probably people here who remember listening to music by way of the audio cassette. The young people in this audience do not remember and/or fully appreciate the work involved in how we used to access our favorite music on cassette, especially if your favorite song was located on side B in the middle of the tape. The discovery experience went a little like this: Press the forward button and wait. Continue to forward, estimate how much tape has wound, place your finger on the buttons, and press play. Listen and identify the song that is playing (mainly by looking at a track list—remember, there was no time code in this process. Once you identify the song, you consult the track list (metadata) and identify your present location. For the sake of this example, let's say that we forwarded the tape too far. We then must press the rewind button, watch the tape rewind, and estimate the ratio of the width of the tape reel and the amount of time you had to go before locating your favorite song. Not being comfortable with ambiguity, you press the play button and listen, only to realize you have not gone back far enough. Press rewind again, and then watch and wait. Press the play button and listen. Wait, this is the song: Success! Well, you are almost finished. As it turns out, you have found your favorite song, but you navigated to the second verse of the song. You then have to press the rewind button, rewind the tape for just a little more, and press play and listen. Okay, now you are listening to the end of the song that is just before your favorite song, so you have to choose whether you just sit back and listen or take a chance and press the forward button. I press the forward button, wait for just a few seconds, and press the play button. Again, I went a few seconds too far, so I pressed rewind, but just for 2 seconds, and then I nervously pressed the play button and heard the opening chords to my favorite song.

I think about this experience when I think about oral history in an archival context and the difficulties that you go through trying to find specific information as a researcher, especially if there's no meaningful text, meaning no transcript or rich metadata. We need that textual representation of an audio or video-recorded interview to effectively discover and process the contents of the interview. However, the reality is archives rarely have the resources to create comprehensive metadata and to transcribe everything because transcription (human-generated) is expensive and labor-intensive.

The Nunn Center still experiences this—I am going to talk about speech recognition technologies in a few minutes—but we are, in general, interviewing at a rate that is outpacing our

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[1] Michael Frisch, "Oral History and the Digital Revolution: Toward a Post-Documentary Sensibility," in *The Oral History Reader,* 2nd ed., edited by Robert Perks and Alistair Thomson (London: Routledge, 2006) p. 102.

ability to transcribe everything. Over the past five years, the Nunn Center has accessioned into the archive an average of over 700 interviews each year. As I have mentioned, oral history is growing in popularity as a methodology, especially at my university, and we are expanding our operation at the Nunn Center. However, human transcription is still prohibitively expensive. So, at the time of this lecture, we are still very selective about which interviews will be transcribed by humans, which was perceived to be the gold standard for oral history access.

I came to the Nunn Center in 2008 after working several years as an oral history archivist at the Kentucky Historical Society and then serving as the director of a grant agency called the Kentucky Oral History Commission. In between my work as director of the Kentucky Oral History Commission and my work as the director of the Nunn Center, I spent nearly two years directing the digital program at the University of Alabama, representing a brief step away from working exclusively with oral history. My work there was focused on digitizing primary sources (mainly photographs, manuscript collections, and reel-to-reel recordings), providing access to these newly digitized resources, and building on their digital repository infrastructure.

During this time, I spent a great deal of time thinking about web usability. I felt that the digital repository infrastructure was failing to provide effective access to time-based media (audio and video), especially oral history—even if there were transcripts. Digital interfaces could present audio online, and they could present a searchable transcript as a relational object, but I was starting to fixate on the fact that, even though they were digital resources, the audio/video and the text (the transcript) were, in no way, working together. The interview and the transcript were functioning for the user as two separate objects. The user could listen to and search the interview, but if the user wanted to locate specific information in the interview—information revealed at a particular time, the user still had to manually control the player to locate the content. In some ways, it was just like that audio cassette all over again. I discovered an influential book originally published in 2000 called *Don't Make Me Think: A Common Sense Approach to Web Usability*, written by Steve Krug. It is acknowledged as a classic for user interface designers. The book is a wealth of information and quotations that question current paradigms, but one quotation stood out to me: "In reality, though, most of the time, we don't choose the best option—we choose the first reasonable option, a strategy known as satisficing."[2]

In 2007, I had the privilege of attending a day-long workshop taught by Krug. The workshop made a strong impression on me, as Krug brought representatives of major local corporate entities, including Delta Airlines and Coca-Cola, to the stage and publicly navigated their websites, calling out each stumbling block in the user experience. All that I could think about during the entire workshop was how incredibly challenging it was to use oral history in the archive, even when using digital interfaces and digital repositories. Driving back to Tuscaloosa, Alabama, that evening, I wanted to move beyond archival "satisficing" and conceptualize a better model for enhancing access to archived oral history.

Building on this awakening to usability, soon after my arrival at the University of Kentucky in 2008, I designed the system called OHMS, the Oral History Metadata Synchronizer. OHMS, in its original form, was very simple. In fact, when it launched in late 2008, it only worked with

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[2] Krug, Steve. *Don't Make Me Think: A Common Sense Approach to Web Usability*, (Berkeley: New Riders, 2005) p. 24.

transcripts. The basic premise was to connect a search of the text to the corresponding moment in the video. Shortly after the launch, we uploaded nearly every unrestricted interview in our archive that had a transcript that was authenticated to the audio and finalized. Since, at that time, we did not have many interviews with transcripts that had been authenticated, we quickly exhausted the interviews that we could put online using this version of OHMS. Then, there was the global economic collapse, and for about a year, I could no longer spend money on transcription; I could no longer use my own innovative system.

In an effort to seek improvement in efficiency and effectiveness, I designed the indexing module of the OHMS platform. The concept of time-based indexing, time summaries, or interview annotation goes way back. In fact, it goes back to the analog days when practitioners would log tape following interviews. Logging tape simply meant that we would listen to the interview and write down the tape player's counter number that corresponded with major subject changes. There have been different instances of attempts to systematize that in the professional oral history community over the years in the analog context. Mike Frisch started talking about indexing in a digital context, but there wasn't an accessible tool that people could use to create an index meant for an online audience. It just made sense to add indexing capability to OHMS.
I remember the conversation with the programmer who was inquiring about what fields I wanted to include in an OHMS index. I wanted the timestamp, I wanted to be able to create a title for segments, I wanted to have a partial transcript, a synopsis or description field for each segment, as well as both keywords and subjects. At that point, the programmer said, "Okay, this is your last chance. What else? Last chance." I was headed to a meeting, so I added in GPS coordinates and hyperlinks. Hyperlinks meant segments could link to external websites, but it also meant OHMS could harvest images that could be presented in a segment.

If you're not familiar with the way OHMS indexing works, through the selection of time stamps, you create segments (typically marking major subject changes) and describe those segments, creating a descriptive map of the interview. Because of the georeferenced information, a user can visualize the segment on a map, and because of the hyperlinks, online images can create a visual context in the online presentation of the interview.

Initially, OHMS was a system that was created only for use by the Nunn Center. In 2012, we received a grant from the Institute for Museum and Library Services (IMLS) to rewrite the OHMS code and make it open source and free, with the intention that others could use OHMS. In 2014, we released the new public version of OHMS. I am proud to say that in 2021, there are over 500 institutions using OHMS in 60 different countries. I'm not going to get too far in the OHMS weeds. If you're interested, I provide links here that you can follow to learn more.[3] The idea is that OHMS would not be the repository infrastructure. Deploying the OHMS Viewer would improve the user experience for any repository, whether you're a national library using a system that your IT staff designed or if you're a small museum using another content management system. OHMS could work with either one. And OHMS could even work with WordPress, or OHMS could work with some of these other free systems.

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[3] *OHMS: Oral History Metadata Synchronizer.* https://www.oralhistoryonline.org/ [Last accessed 2024-01-24]

What I am trying to prioritize here is this idea of usability. OHMS is not the only thing that you should use in your toolkit, and I'm not here to convince you to use OHMS. I am here to stress the values that underlie the creation and growth of OHMS—usability, affordability (free), and sustainability. Sustainability is critical. You can get a grant and do magical things. But when that grant runs out, you can't sustain it. We need tools that are community-supported and community-driven. We need interoperability, compatibility, flexibility, and tools that are open-source and non-proprietary. We need to minimize dependencies. I wanted to create a system that wasn't going to force people into one system and not give them a way to get out. I've been in that situation with archival platforms. And so, having something that was affordable, open source, and free was really the goal all along. OHMS has grown way beyond my initial vision, and I am very proud of it, to say the least. But as I stress the importance of sustainability of tools, I pose a question: "What happens to OHMS if Doug Boyd were to suddenly quit oral history?" What would happen to OHMS and the archives around the world that depend on OHMS? As OHMS grew, it became obvious that OHMS was becoming too big for the Nunn Center alone to fund and sustain. It got to a point where I was thinking about this every day—not the part about quitting oral history. Over the past several development cycles over the last few years, we have been preparing OHMS for the next phase. This year, we are implementing the most important development cycle since the initial creation of OHMS.

The Nunn Center has forged a partnership that is unfolding as we speak, where we're embarking on rewriting the entire code base for OHMS. First, we are modernizing the entire code base for the system. Second, we have created a partnership. We have partnered with a company called AVP, which is the developer I've been using for OHMS for the past six years. However, AVP also created a very powerful repository infrastructure for audiovisual archives called Aviary. In September 2023, OHMS will be integrated into the Aviary platform.

The Nunn Center has been using Aviary for several years as our back-end delivery of audio and video interviews. When you interact with the Nunn Center's OHMS Viewer, the audio and video is being delivered via Aviary. Aviary is a very powerful platform. Yes, Aviary is a commercial platform that is subscription-based, but OHMS will continue to be free. You do not have to be a paying Aviary customer. For the first time in a decade, I can truly feel like this codebase is going to be sustained. If you're a current OHMS user, you won't notice a difference other than that you'll see a much more refined user interface and a much more stable platform, and it will be more robust and secure. Additionally, the Aviary integration opens the door to future integration with other systems. We're already exploring integration with a system called Murkurtu, a repository platform designed to serve indigenous communities. In addition to addressing sustainability, we have put the pieces in place for much more rapid innovation to serve the oral history and archive communities better.

Through the many successes of OHMS, what I care the most about is the fact that, for the Nunn Center, OHMS has exponentially enhanced access to nearly one-third of our entire archival collection. In 2020, we reached a total of over 14,000 interviews in our archival collection, with a little over 4,000 interviews being presented using OHMS. Acknowledging the limitations of deriving meaningful information from web analytics, according to Google Analytics, 213,000 interviews were accessed in 2020. In 2008, before implementing OHMS, the Nunn Center would report 200-300 interviews accessed annually. That's a significant difference. Again, it is difficult

to dig into web analytics in a meaningful way; however, when I cite 213,000 interviews being accessed online, we are also seeing that our archived interviews are being used in articles and books in growing numbers, but the interviews are being used extensively outside of academia, for example, in documentaries, news outlets, and podcasts. So, it is not just about "clicks" or "page views." We are seeing the benefit of enhancing access, and we are now serving a global audience. I am not overstating when I say that this represents a transformational change for the Nunn Center.

In addition to transforming online access to the Nunn Center's collections, OHMS has played an important role in expanding the Nunn Center's capabilities to engage collaboratively with students and faculty at the University of Kentucky, as well as engage in partnerships with other colleges and universities. Entire college semester-long courses are being designed around some of our oral history projects, and at the core of the model, it involves students indexing interviews as part of the course curriculum. The Goin' North and the Philly Immigration models, a partnership with Professors Janneken Smucker and Charles Hardy at West Chester University, are both excellent models of this deep collaboration. The courses were indexing interviews from the Nunn Center's collection, using Omeka to build a website featuring the indexed interviews in the context of digital exhibits and expanded biographies. These types of collaborations really opened my mind to move beyond traditional archives/classroom collaborative models—the archive using OHMS to prepare and serve up interviews for future researchers—to also being a source of deep pedagogical engagement. When students are using OHMS to index interviews as part of the class, it involves deep listening, critical assessment, and writing, in what becomes an intense interpretive exercise. The teachers and professors love it because students are working with primary sources using an e-humanities/digital humanities approach that proves really enticing and engaging for the students to work with. But there are also tangible outcomes. The students are creating the index that will be utilized by researchers, and the students are taking pride in that, inserting links to interviews that they've indexed on their resumes or on their graduate school applications. They feel like they're participating in this process of curating and creating history in a real and very rich way. This model has proven to be transformational as well.

We talk a lot about the online OHMS interaction between the user and the interview, but a semi-physical interaction created by OHMS has emerged in certain scenarios. The Nunn Center has partnered with museums like the Bluegrass Music Hall of Fame and Museum in Owensboro, Kentucky. The museum video recorded 180 interviews with individuals considered to be in the first generation of the musical genre, and the interviews are archived at the Nunn Center. We installed a touchscreen experience in their exhibit where the visitor engages directly with OHMS-ed interviews by way of a simple Omeka repository using the OHMS plugin suite for Omeka. In a traditional museum context, the curators would choose three short excerpts from eight hours of interviews for those museum visitors to listen to. Now, the museum visitor uses the OHMS Viewer interface to choose an excerpt and curate their own experience.

I want to switch away from OHMS at this point and talk about remote interviewing; thanks to COVID-19, we all want to talk about that. The reason oral historians are so interested in talking about remote interviewing is the fundamental fact that, before the pandemic, those who talk about oral history "best practices" from the technical perspective, myself included, would have

done anything to try to talk you out of doing a remote interview. We have all been impacted by numerous shifts in society, and the practice of oral history is no exception. The Nunn Center ended up conducting over 600 interviews remotely in 2020. This year, we have already conducted over 400 additional remote interviews, so we are on track to probably do over 700 remote interviews this year in 2021. As a center, we have embraced remote interviewing when needed, but I will admit that it took some serious adjustment. Earlier in my career, one of my roles was to teach oral history practitioners the new digital recorders, mainly because I had worked a great deal as a musician with digital recording. Whenever I consult with individuals and answer the timeless "Which recorder should I use for oral history?" question, I would strongly emphasize the best audio and video recording equipment (recorders and microphones) for your projected outcome that you could afford and learn how to use intuitively. So many oral history projects would have one narrator or interviewee who moved away, and traveling to conduct an interview was not possible. I would often get approached about how to record telephone interviews for these individuals (now it is video conferencing platforms like Zoom) and would try to emphasize that these recording methods should only be used as a last resort. Our avoidance of these approaches was not just about the inferior recording output; it was also about the flow and rhythm of the interview and your ability to connect with the narrators or interviewees. Now, I have a very different perception of this interviewing approach. Every oral history project is now, potentially, a global oral history project. Every student at the University of Kentucky has a professional Zoom account, and they have grown very accustomed to interacting on these platforms. I am not saying that these technologies are universally accessible; in fact, they are not. However, far more people outside of academia and around the world are more comfortable using these technologies. Once more, due in large part to COVID-19, we have learned how to optimize our remote interactions and develop rapport with the people we are interviewing. We pause a few extra beats before asking our next question in the hope of not interrupting the interviewee or narrator because it is more difficult to read the non-verbal cues and determine that it is time to interject a new line of questions. The expanded connectivity we now have is very powerful and, once again, transformational for oral history practice. I particularly love video platforms like Zoom or TheirStory because these platforms allow you to visually connect, find your interview rhythm, and make it easier to develop that rapport that is potentially lacking with a telephone audio interview. For me, I have a very difficult time connecting with a narrator or interviewee on a telephone interview. For audio interviews, I have to work extra hard just to stay focused when I cannot visually interact in real-time. This is not to say we have not conducted numerous telephone interviews at the Nunn Center. In fact, we have one interviewer who prefers the telephone. In this particular example, this individual has over ten long-running oral history projects where he is conducting life history interviews and dozens of interviews with the same individuals. He already has developed the in-person rapport and a relationship with the people he's interviewing. So that matters. However, we have found that, ultimately, there is no more stable and simple remote interviewing platform than the telephone interview.

Remote interviewing does place a limiting technological burden on our narrators and interviewees. The expectation that our narrator and interviewees should all have computers with webcams, Internet connectivity that can support uninterrupted video streaming, and a deep understanding of how these technologies work so that proper troubleshooting can take place when setting up the interview is something we all need to recognize. Certainly, we would not

expect our narrators or interviewees to bring their own professional recorder and microphone to an interview, or to have put in several hours practicing with the equipment. I worry that a growing emphasis on remote interviewing will prove exclusionary and elitist. From that perspective, when it comes to remote interviewing, the phone (landline or cell phone) becomes the great equalizer. Very clearly, a de-emphasis has emerged on the fixation on recording quality. There was a time when you would never see Zoom-quality video footage on broadcast or cable news, but now you see it every hour of every day. People will still talk over one another and interrupt at inappropriate times, and people will continue to sit in front of windows, making it very difficult for a camera to achieve the appropriate exposure, which all still frustrates me, but there has been a general relaxation on the acceptability of remote interviewing, and I think that is a good thing. I still think that there is no substitute for the in-person interview experience; however, a shift in perceptions about technical best practices and the expectations of quality means that it is ultimately about the interview and the stories being told that win. It's the content. It's not necessarily a fact that every video has to be high-definition, 4K, or 8K in terms of quality, shot in a studio with perfect three-point lighting and overhead shotgun microphones. Remote interviewing can still result in very successful and impactful interviews. Remote interviewing has changed the Nunn Center's workflows dramatically in ways that will remain after COVID-19 goes away. We have now shifted to an optional online deed of gift. The Nunn Center now requires all interviewers to submit their interview metadata—interview descriptions and keywords, via an online form for every single interview, and that has made our interview transfer workflows far more efficient.

I want to talk about automatic speech recognition here and how the Nunn Center is starting to implement the automatic generation of transcripts systematically. For years, we all said "it is not quite there" in terms of accuracy and that it was still "better" to use humans to create oral history transcripts. In the past, the Nunn Center would pay a professional transcription service to create the initial draft, and then we utilized students who were employed at the Nunn Center to "authenticate" that first draft by listening to the audio while finalizing the transcript. I believe that we have reached the tipping point where it is more cost-effective to generate the first draft of transcripts automatically and authenticate that version. To clarify, I am speaking very specifically about English, as I have no experience working with the primary speech recognition platforms in other languages. If an interview is well recorded, you can easily create a transcript that has over a 94% success rate. From our data, this still means there will be about six and a half hours of cleanup and formatting of the document.

So, what do we want from speech recognition technologies? For oral history, we have always set the bar high, expecting our transcripts to be verbatim, accurate, and essentially perfect. It is a textual representation of a primary source recording, someone's life stories and experiences, so of course, we want it to be "perfect." However, I've begun to prepare myself for the ubiquity of affordable speech-to-text technologies to begin to pull down our expectations somewhat to a point where we will require mostly accurate, mostly verbatim, and good enough transcripts—practical imperfection. I am certainly not saying the Nunn Center will provide broad Internet access to an interview transcript that has a 7% or 6% error rate because I find this unacceptable. However, for the practical purposes of search and discovery, a 93% or 94% success rate is fantastic.

Okay Let's start off with the basic question Can you tell us your name and um, your, your, your job title or function here if a at the distillery. I'm Fred. No Noe I'm the master distiller here at Jim Bane and we're sitting in a beautiful setting here. Can you describe that here around on the distillery grounds? We are in the Knob Creek Guest House on the distillery grounds here in Claremont Clermont. We acquired this house when we bought this property and we use it for editing letting customers stay here if they come visit and meetings and lunches and interviews like we're doing right now. And we're only a few miles from Bardstown, Kentucky. Um, can you tell us um a little bit about the town in, is that where you were born? Yeah, I was born and raised in Bardstown, Kentucky. The Bourbon capital of the world bar sounds Bardstown's about 15 miles from where we're sitting right now. Uh, it's, uh, was the home for many, many distilleries before prohibition. Uh, several came back after prohibition. Now there's just a couple that are still up and running there. But that was the main industry in Bardstown back in the old days. The main street north third street was known as distiller's row because of the master distillers. They had that lived along the main street of Bardstown. Now I guess I'm the only master distiller that's still living on third street in Bardstown. But what was it like growing up in Bardstown and in that environment and in that bourbon environment to do with, did the Bourbon and families intermingle? Do Did they associate with each other? Were they friends more than competitors? Oh, you know, growing up in Bardstown, when I was a kid, there was many, many families involved in the bourbon industry and we were all friends. I mean Charlie Despain, who was at the time was the plant manager at Heaven Hill. He lived about a half a block from our house and every year at the Bourbon Open Golf Tournament, Charlie hosted a huge cocktail party in his backyard. And I can move me in remembering being as a kid watching the people come and go from his house that that night. And everybody was friendly. I mean, you know, it was a, you know, a lot of families were touching bourbon and it wasn't, you know, that was a big industry. So everybody's families worked in different distilleries and it was just what your, your, uh, folks did was, that's what, like my dad was a at Jim beam, a friend mine down the street. His mom worked at Heaven Hill and there was Barton and Shin Lee Schenley and double springs and all these other distilleries lighter right there in Nelson County. So that was very common. You are, uh, tell us your relationship to a uh Jim beam. Jim Beam was my great grandfather. Uh, I'm the seventh generation of beams to be involved in the Bourbon Industry here in Kentucky. And growing up, were you aware that you are part of this, um, um, establishing established and, um, famous distilling family? Were you aware of that? Well, you know, growing up, you know, in the family, my dad was the boss at Jim beam. That was all I knew is as a boy. And I went with him to the distillery, you know, and that's where I learned to hunt, where I learned to fish. You know, I rode on the trucks to the train the, came in to delivered deliver goods, grain and other uh products that they used. I would ride on the train and I mean it was just a place for where my dad worked and a lot of my friends' fathers work worked there too. So that's just where our parents worked and you didn't really think about it, what it was all about until later in life. When you know I was away at military school and my father would bring bottles to the all the teachers.

In the graphic that I am showing, the green highlights represent the words that I deemed to have the highest degree of searchability for that particular interview segment—the people, the places, the events, the institutions, and such. The red words represent errors in the automatic transcription, the mistakes. When we consider the balance between the red and the green—the entities in the context of the transcription errors, we are looking at something that is amazing. So, the Nunn Center is now actively using these technologies to generate transcripts. We still utilize human transcribers in certain cases, and we can talk about those cases in the Q&A session at the end. Human-generated transcripts consistently cost the Nunn Center $200 per interview hour, which breaks down to cost $140 to create that first draft, and then we pay Nunn Center student employees to perform the final authentication, that final audit to ensure the first draft is, indeed, verbatim, conforms to our style guide, and that the proper nouns are spelled correctly. Continuing to think about the economics, we are able to create a final transcript that originates from machines and is cleaned up by humans for about $90 per interview hour, which is a significant cost savings when you're talking about working at the scale that we're working. If the goal is a final, verbatim, and fully authenticated transcript, the workflow using automatically generated transcripts will take anywhere between 6.5 to 8 hours of work per interview hour. This is not insignificant when considering archival workflow at scale. The Nunn Center will create a draft transcript representing each interview that we accession into the archive, but we will still be selective about which interviews will have authenticated transcripts. From the search perspective, we have reached the point in time when we have the potential to textualize every oral history interview in our archive or interview that is created moving forward. It may not be a

perfect transcript that we make publicly accessible on the Internet, but our abilities to search, explore, and discover content in our collection have been transformed exponentially.

When I talk about the usefulness of practical imperfection, I am specifically referencing the automatically generated transcript in draft form as being a useful source for the creation of descriptive metadata. The dramatic improvement in the quality of speech recognition technologies is driven by artificial intelligence. AI is also greatly improving the effectiveness of natural language process, the ability to parse large amounts of text, perform Named Entity Recognition (NER), analyze relevance based on word frequency, and even conduct sentiment analysis on the text to detect the presence of certain emotions represented in the content of the interview. The Nunn Center will soon implement a system that uses automatic speech-to-text technologies and natural language processing to extract descriptive metadata automatically.

As a practical example of this workflow, I will explore an interview that we conducted from one of our projects documenting the bourbon (whiskey) industry in Kentucky. Creating a transcript using speech recognition, I conducted a word frequency measurement of the untouched draft transcript, which filters out the stop words and filler words, including the "ands" and whatnot. As it turns out, the words that rank the highest are quite accurate in representing the primary contents of this particular interview. Then, I ran that transcript through Named Entity Recognition software, and the software extracted these terms. Numerous mistakes are made in this automated workflow. Remember, this is being created from a draft transcript created by a machine. For example, the city "Claremont, Kentucky" was spelled like the city Claremont, California, as opposed to where the Jim Beam distillery is located in Clermont, Kentucky. Jim Beam ranks high, but "Jim Beam" is also clearly referenced as "Jim Bain;" I am guessing this is because of the narrator's or interviewee's accent. Even though the software had inaccuracies, it was extracting the place names effectively. Once more, I will underscore the importance of human intervention in interpreting this data. I strongly believe that an archivist still needs to perform significant quality control in order to recognize mistakes before interviews are made publicly available. Still, our ability to create useful searchable text for each interview in an archive is a reality.

In my design of our natural language processing workflow, a core element of the system will be an attempt to semi-automate the sensitivity analysis. As OHMS has enhanced access to our interviews to a global audience, the Nunn Center has had to adopt stringent filters to identify nuanced privacy risks that exist throughout even the most topically mundane oral history interview. Even before GDPR in the European Union, we have implemented workflows to identify potentially problematic content in the interviews that we are indexing or preparing for online access. Our new workflow will parse the automatically generated transcripts and look for words and phrases that demonstrate potential privacy or content risks, which would raise the red flag, so to speak, identifying moments within interviews and projects that need to be more closely examined prior to the archive providing access to that interview.

A good oral history interview contains details. In some ways, it is the detail that sets oral history apart from other forms of interviewing, say, for instance, journalistic interviewing. The problem we are facing but not talking much about yet is that when an interview is delivered to a world and a global audience, that detail could prove extremely problematic. From a single year of

indexing interviews in our collection, problematic instances included casual accusations alleging involvement in a local murder thirty years prior; individuals discussing personal drug use, as well as the drug use of other specific individuals; their own sexual activities, and naming names of third parties; a discussion of speculative criminal allegations that were detailed and unprosecuted; an individual revealing their own HIV status and then later regretting speaking about it years later; somebody admitting to a forgery; and finally, we even had a retired master distiller reveal the specifics of a bourbon recipe which was legally problematic. The oral history field speaks a great deal about informed consent on the interviewing side. However, we do not talk as much about consent once interviews are transferred to the archive. I have always stressed that the access and reuse phase of the oral history life cycle does not get nearly as much attention in the scholarly discussion, and more attention really needs to be paid to it.

I wrote a brief article using the term "informed accessioning." The term represents the archive having comprehensive knowledge of the contents of the interview they are agreeing to preserve and eventually make accessible. For archives that do not have the resources to comb through every line of human-generated transcripts for every interview that is in their collection, I think we will soon have vastly improved tools for performing content sensitivity checks on every interview. Of course, these tools will not be perfect, but my hope is that we can design these systems to identify potentially problematic moments for the archivists to then closely examine and determine a course of action.

The acronym we have used in the Nunn Center for our manual sensitivity identification workflow is "APPLES," the Access, Personal, Privacy, Legal, and Ethical Sensitivity analysis. Prior to an interview becoming broadly accessible online (using OHMS), we look for any content in the interviews that could pose a potential privacy risk. As an exercise, I went through our archival collection and searched for the phrases "maiden name," "elementary school," and "best friend." Within seconds, I could have three data points that could be utilized to triangulate data in order to reset an individual's credit card or bank account password, especially if an email address could be identified. When framed in these terms, it becomes apparent that oral history implicitly contains potentially problematic details. As another example, analyzing just the first two minutes of an oral history interview conducted for one of our several Peace Corps projects, I have highlighted all of the terms that could potentially be problematic. In just the first two minutes, there is a full name, the fact that they served in the Peace Corps, the year they were born, where this individual attended school as a child, the fact that this individual was part of a family of six and that they were the youngest, and the city where they grew up. Additional details in this example include the fact that they grew up "under the umbrella of Notre Dame University" and a reference to the "Fighting Irish," which indicates their interest in the football program (American football) at Notre Dame University. Also included in these first few minutes is that this individual is Catholic, went to private school, and then attended public school. In just these first few minutes of an interview, we have data points that could be effectively misused.

As a field of practice, we need to start preparing ourselves for thinking about oral history, for better or worse, as "big data." The better we make our archival search and discovery systems, the greater the potential risk we introduce. As interviewers, we have always stressed "informed consent" and sought to "do no harm" in our oral history practice. However, I feel like in a world where technical innovation is accelerating, the idea of "informed" consent is extremely limited. I

struggle with the notion that what we are defining as "informed consent" today greatly falls short of the near future reality.

Artificial intelligence is transforming our abilities to process interviews in far more effective ways. However, AI is introducing elements that are somewhat disturbing. One thing that frightens me is speech synthesis. If you have 40 minutes of an individual's voice, we can completely synthesize their speech and use a keyboard to type entirely new sentences that are synthesized to sound like that individual originally recorded, including their cadence and unique mannerisms. What I am saying is that an interview, for example, can be completely fabricated, posing what I believe to be a potential existential threat to something like oral history as a primary resource representing a historical reality. You can simply type a sentence and make "Doug Boyd" say something that Doug Boyd would never actually say. In some ways, archives will need to take on the new role of authenticating recordings. As a profession, we have put so much attention into interviewing ethics and best practices. We have done a great job improving opportunities for discovery and access on the archival side of the oral history process, as our archived interviews are being accessed by a global audience. In so many ways, this is why we do oral history in the first place: so we can preserve these important perspectives in a way that other people can listen to and understand.

Unfortunately, we are incapable of knowing what we don't know. We are in an early developmental stage of the Internet, and we are starting to see the cracks develop. An excellent example is the proliferation of misinformation and even disinformation, the abuse of personal information on the part of corporations and social media platforms. What happens when the Artificial Intelligence bots begin to scrape our oral history collections for content? We need to begin to collaborate on creating global ethical frameworks for the entire life cycle of the oral history interview. That doesn't just mean the interview ethic, the publication ethic, or the archive ethic. I think we currently have a pretty good handle on those ethical frameworks. Where we completely lose control is in the use and the reuse ethical framework of these interviews because we will be exposing our interviews to human and machine audiences that simply do not care about ethical frameworks. I do not have the answer to this right now, but it is something that we all need to start thinking seriously about. Fifty years from now, some of us won't be here, but the interviews that we conduct and preserve are still going to be in the archive and will still be accessible. How can we ensure that the humane and compassionate treatment of these life stories continues throughout the oral history life cycle?

I am going to end on this idea. I think a lot about the conscious disinformation that is proliferating right now. I still have the optimistic view that oral history can change perspectives and minds and that if we have more people listening to other people, oral history can, indeed, be a counter to information chaos and disinformation. I do not think the answer is simply "don't put your interviews online," as archival obscurity will ensure our interviews will have little or no impact on the historical record until several generations down the line. We need to focus on anticipating problems and creating proactive solutions, collaborating on conceiving ways that we can improve what we do and designing systems that empower oral history to be as effective and impactful as we hope it can be.