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Librarians Discuss the Future: A Panel Discussion

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COLUMBUS METROPOLITAN LIBRARY

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Peter M. Shane*: I'm a law professor at The Ohio State University and faculty chair for a journal with the unwieldy name of *I/S: A Journal of Law and Policy for the Information Society*, which focuses on issues at the intersection of law, policy, and information

technology. We try each year to focus on a hot topic at that intersection, and this year our topic is the future of libraries in the digital age. In case you're wondering why a law and policy journal would be focusing on libraries, handy clues would include the First Amendment, privacy, copyright, and broadband policy. Before launching, however, into a day of interdisciplinary scholarly panels, we thought it might be illuminating to start with a less formal discussion among some actual library leaders from our local community, representing four very different kinds of libraries.

They are: Alison Circle, Chief Customer Experience Officer for the Columbus Metropolitan Library, which has about two dozen branches in a metropolitan area of over one million people; Sara Sampson, the Assistant Dean for Information Services and Director of the Law Library at The Ohio State University Moritz College of Law, which serves a smaller, more professionally defined audience; Rachel Rubin, Director of the Bexley Public Library, which serves our neighboring city of Bexley, which has roughly 13,000 residents; and Damon Jaggars, Vice-Provost and Director of the University Libraries for The Ohio State University. Responding to their remarks will be Jeffrey Schnapp, who is a professor of romance languages and literature at Harvard University. Professor Schnapp teaches about libraries in the Harvard Graduate School of Design. He directs the metaLAB at Harvard's Berkman Center for the Internet and Society and has co-authored with his co-director Matthew Battles a volume called, *The Library Beyond the Book*. Their slim volume provides an incredibly creative and perceptive meditation on libraries past, present, and future. The authors point out that the library remains in the collective imagination of a great many people as a vast storage container for printed matter organized around some standard appurtenances. If you know anyone laboring under that misconception, their book is the cure.

Alison, please start us off.

Alison Circle: I am not a librarian and my background is in marketing. It's an unusual thing for someone without a library credential to run a library system. I do have librarians who report to me, and the marriage of what a marketing mind and what librarians together can do makes a rich experience all around. The question posed to us for this panel was how digitalization will affect the future of libraries. To approach that inquiry, we really have to ask a few prior questions: What are public libraries about? Are they about books on shelves? Are they about circulation? Are they about the collection? Are they about community?

For my library, we're really focused on adding value to the community. My colleagues and I have been reflecting on an article that discusses how the Ford Motor Company has moved away from thinking of itself as a car company to thinking of itself as a mobility company.¹ In other words, Ford has started thinking about itself as a service provider, not just as a creator of products. At the library, we are similarly looking hard and deep and asking ourselves in a similar spirit of service, "What are we about?" We have come to understand that the key to our maximum impact is not the format of our collection, whether digital, paperback, or hardback, or whether an asset is a picture book or encyclopedia. The unique value we can add is enabling kids to learn to read.

Between one-third and one-half of the children entering kindergarten who are in our service district have difficulty rhyming simple words.² They find it hard to recognize initial sounds. Two-thirds of the children who can't do these things when they hit kindergarten will go on to fail the state's Third Grade Reading Guarantee – the requirement that a child cannot be promoted to the fourth grade in Ohio unless and until they achieve a passing score on a statewide reading exam for third graders.³ Predictably, the same

* This is the edited transcript of a panel discussion held on March 24, 2016 at The Ohio State University's William Oxley Thompson Memorial Library.

¹ Steven Bell, *Advice for Academic Librarianship: Think Like Ford*, LIBR. J. (Aug. 6, 2015), <http://lj.libraryjournal.com/2015/08/opinion/steven-bell/advice-for-academic-librarianship-think-like-ford-from-the-bell-tower/> [<https://perma.cc/B7DJ-GQU6>].

² Until the 2013-2014 school year, Columbus kindergartners were assessed using the KRA-L (Kindergarten Readiness Assessment – Literacy) instrument, which divided students into "bands," reflecting different categories of kindergarten readiness. In 2013-2014, 48.9 percent of the students tested scored in "Band 1," the band of students who were least kindergarten-ready. In earlier years, the figure hovered closer to 34 percent. See OHIO DEPARTMENT OF EDUCATION DATA (on file with I/S); COLUMBUS CITY SCHOOLS, PRE-KINDERGARTEN EXPANSION PROPOSAL 1 (2013), <http://www.ccsok.us/Downloads/FINAL%20CCS%20PreK%20Expansion%20Proposal%20021213.pdf> [<https://perma.cc/N88Z-EUQ5>]. For the criteria used to assess kindergartners using KRA-L, see OHIO DEPARTMENT OF EDUCATION, KRA-L SCORE INTERPRETATION WORKBOOK 3 (2009), <http://www.ohiomemory.org/cdm/ref/collection/p267401ccp2/id/5092> [<https://perma.cc/RYP6-EWRZ>].

³ JESSICA LOGAN, LAURA M. JUSTICE & JILL PENTIMONTI, CRANE CTR. FOR EARLY CHILDHOOD RES. & POL'Y, READY TO READ AND SCHOOL SUCCESS: KINDERGARTEN READINESS AND THE "THIRD GRADE READING GUARANTEE" 9 (2014), <https://earlychildhood.ehe.osu.edu/files/2016/04/CCEC-White-Paper-Winter-2014-PDF.pdf> [<https://perma.cc/T56U-25DU>].

people don't graduate from high school.⁴ Yet we know that the poverty rate for high school graduates is half the poverty rate for non-graduates.⁵ Putting people on a path to high school graduation is a proven antipoverty strategy.

To move forward on the understanding of what we, as a library, are about, we are engaged in a process of creating. We're building ten new buildings intended to provide environments for learning that will create community value. We are looking at our data points in a way we never have before, not just to have the numbers, but to direct our actions at outcomes. For example, we are linking our aggregate student data about who participates in our programs like Homework Help or after-school Reading Buddies, and linking that data to school performance data so that schools can see which kids participate in our programs. This will enable us to show if the youngsters who participate are doing better in school and if their grades are improving. This is our plan to create long-term value because preparing young people for school is never going to go out of style. That is always going to be the most important thing we can do for kids and our community. Our sweet spot is reading; that's where everything starts. Each of us is here today because we someday walked into a library, picked up a book, and started reading. As other people and institutions make different decisions about what their community value is, we are really staking our claim on that. And it doesn't matter to this aspiration what format the content comes in, whether it's digitized or not. In order to learn to read and have a lasting, successful life, it's really about taking advantage of the window of opportunity when children's minds are most open, because that window closes around ten years of age.⁶

⁴ Sarah D. Sparks, *Study: Third Grade Reading Predicts Later High School Graduation*, EDWEEK (Apr. 8, 2011), http://blogs.edweek.org/edweek/inside-school-research/2011/04/the_disquieting_side_effect_of.html [<https://perma.cc/37J9-JY38>] (“A student who can't read on grade level by 3rd grade is four times less likely to graduate by age 19 than a child who does read proficiently by that time. Add poverty to the mix, and a student is 13 times less likely to graduate on time than his or her proficient, wealthier peer.”).

⁵ U.S. CENSUS BUREAU, CURRENT POPULATION SURVEY: INCOME AND POVERTY AND HEALTH INSURANCE 16 (2014), <http://dataverse.ucdavis.edu/dvn/dv/CPR/faces/study/StudyPage.xhtml?globalId=hdl:SSDS/11315> [<https://perma.cc/AKY6-SEK7>].

⁶ LOIS BRIDGES, MAKE EVERY STUDENT COUNT: HOW COLLABORATION AMONG FAMILIES, SCHOOLS, AND COMMUNITIES ENSURES STUDENT SUCCESS 9 (2013),

Peter M. Shane: Thanks, Alison. Sara, you're next.

Sara Sampson: Because my institution is both a subject library – law – and an academic library, I want to separate those two things and talk about the greatest challenge that we face in playing each of those roles. But first I want to address what is different or special about law for those of you who aren't lawyers in the room. Law libraries are concerned not only with current information, but also with what others would consider old information. The law that applies to a particular situation can come from many sources, and each of those sources will have a geographical link, which we call a jurisdiction.

Just sitting in this room, the laws of many jurisdictions apply to us. Were I to commit a crime in this room, the City of Columbus might care, Franklin County might care, the State of Ohio might care, and the federal government might care. So to research all the law that applies, my lawyer would need to focus simultaneously on four jurisdictions. And in each one of those jurisdictions, multiple institutions create law; courts, legislatures, the executive branch, and so on. Some of the things that apply to a particular legal situation were created just recently and some were created decades or even centuries ago. A law library needs to make all of that available. Most, but not all of this information, can be found online today if you have access to the right databases and the right skills to use them, but there is no single database that will allow you to find all of this information – not even Google.

The closest versions to comprehensive databases – those of you who are law librarians in the room know – are Lexis Nexis and Westlaw. But they are incredibly expensive and really available only to lawyers and their staffs. So in law, our greatest challenge is to overcome the preconceived notions that everything is online and that everything online is accessible. We then need to work towards making those notions a reality, that everything is both online and accessible.

By “accessible,” I mean lots of things, but I want to just focus on three that are particularly challenging for law. First, because the law that is applicable to any matter might be the current law or it might be law that was in effect many years ago, accessibility must be achieved for the versions of law that change over time. Imagine you are a lawyer, for example, dealing with complaints about a building. If your

building was erected a long time ago, you need access to the building code that applied when the structure was built. You need to have old copies and good version control so that we understand, when you do a search, which versions of a law applied when. This might be best illustrated by an example. When I worked at the Georgetown Law Library, we had a historic code collection, which was a single room that contained all fifty state codes, all versions from all times, back to the 1800s. It was used all the time, and it was used both because we had the content and it was in a format that enabled people to go in and browse. A researcher already equipped with a citation could quickly enter and retrieve the relevant source. Much of that content is not available online, and what is available is not all in one place.

A second challenge we confront is authenticating online information. Lawyers want to be certain that what they're looking at is a correct reproduction of what a judge, legislator, or executive official actually handed down as law. A single word or a comma change can completely change the meaning and the outcome of a case. So lawyers and everyone else need to have the right law when it's online. The Federal Government Publishing Office does a really good job of this for the online version of federal law. But very few states do this. A 2013 survey found that only five states, one in ten, had legal materials that were authenticated completely online.⁷ So it's not good enough to simply put legal information up on the web. Lawyers need access to authentic versions of the law.

The third challenge is to create meaningful access for everyone, not just people who can afford to pay. Access to justice includes access to the text of the law itself. To have that access you have to be able to search, and you have to be able to update. A recent survey of state legal information by Sarah Glassmeyer, who is a Berkman Center Fellow, found that current state-provided free tools make it impossible to do anything but basic research online.⁸ Remember when I said there were lots of jurisdictions in that one place? If I wanted to

⁷ AALL DIGITAL ACCESS TO LEGAL INFO. COMM., PRELIMINARY ANALYSIS OF AALL'S STATE LEGAL INVENTORIES (2013), <http://www.aallnet.org/Documents/Government-Relations/2011-2012-Preliminary-Analysis-of-AALLs-State-Legal-Inventories.pdf> [<https://perma.cc/88QK-SAR4>].

⁸ SARAH GLASSMEYER, STATE LEGAL INFORMATION CENSUS: AN ANALYSIS OF PRIMARY STATE LEGAL INFORMATION 1 (2014), <http://www.sarahglassmeyer.com/StateLegalInformation/wp-content/uploads/2014/04/GlassmeyerStateLegalInformationCensusReport.pdf> [<https://perma.cc/BL5Y-V5BQ>].

look at the free resources for all four jurisdictions that regulate us at this moment, I would have to go to the City of Columbus website, the Franklin County website, the State of Ohio website, and a federal government website. I would have to research each, one at a time, and the online versions of nonfederal law may or may not be authentic. Other tools that purport to be free and to aggregate the content often have a cost related to privacy, which lawyers care about because of the connection between privacy and the professional obligation of confidentiality. In sum, law libraries have made a good start at providing service in our new digital context, but also face a lot of challenges that we need to solve in the next decade or two.

Now, speaking as a librarian in an academic institution, I find our greatest challenge is similar to that facing other academic libraries; namely, the need to educate our users to be information-literate. For many of our students, for example, the process of legal research is really different from the research that they did in undergrad. For example, there are occasions where the rule that applies to a legal situation is not clear until you've found lots of sources and you've read them and then gone back and searched some more. Finding an answer by typing some words in a search box doesn't work at all. And because the legal market is volatile, I may be an expert today but in six months have to relearn everything to apply my research skills to a different product that my firm has decided to use or that the company itself has completely revamped. Fortunately, faculty understands that legal research is an important skill and we're lucky in the legal environment that our institutions, like Ohio State, value instruction in legal research and that instruction is being done by law librarians, who are skilled both in substantive law—many librarians who teach legal research have a law degree and some practice experience—and in librarianship. Our law libraries need to continue to teach how to do legal research so that we have information-literate attorneys in the digital age.

Peter M. Shane: Thank you, Sara. Rachel?

Rachel Rubin: I really struggled with what I was going to talk about today, and this surprised me because I rarely struggle with talking. But I discovered that the reason I was having this struggle is that digital content and digitization are intrinsically tied to so many things. Confronting the digital world is not just a question of collection development or customer service. It's not a facet of librarianship that you can pull apart from almost everything else that we do. It's tied to the way we plan. It's tied to the way we strategize. It's tied to the way that we engage in services, even if often not

consciously. It's just sort of there. It's something that is already imbued in everything that we're doing every day. And because of that complexity, digitization uniquely presses on many of our values, on our ethics. It pushes our buttons in a way that most other phenomena do not. It pushes on privacy. It pushes on intellectual freedom. It pushes on equitable assets. It pushes on inclusion in a unique way. As we think about these pressures, the move to digital often feels oppositional.

So, although I believe that digital content is great, I'm not going to talk about the great stuff, but will focus instead on the challenging stuff. As the digital move is pushing on hard issues, it is challenging us as service providers to protect critical values for our patrons. For example, if you think about the IRS, taxpayers have always gotten paper tax forms. Yet the IRS in recent years has decided not to send out so many paper tax forms. This is a big deal. Just because they've decided to stop sending paper doesn't mean that our whole society of taxpayers has suddenly figured out how to use the Internet to file taxes. Where do they go? We have a large group of people who don't have digital capability. They're either not comfortable with the Internet or they don't trust themselves. Whom do they trust? They come to the public library. We are that bridge that enables citizens to cross the digital divide.

The importance of digital inclusion goes way beyond tax forms. It affects, for example, how you apply for disability benefits or social security. As government moves online, we've basically taken a slice of society that's already marginalized, already dragging behind, already not engaged in our democratic institutions the way they should be and saying, "Too bad. We're going online. See you later." Public libraries are thus uniquely positioned. We're probably the only institution that is well situated to fill the digital gap.

I like to think of the social safety net as sort of like a dam. Communities have educational institutions and social services, but, as the dam shifts, libraries scan the environment and we look at our values and say, here's where we can put our hands, here's where we can stop that water. Every time things change, the dam moves some more. More cracks appear, and we have to decide where we are going to put our hands. What floods are we going to block with our limited resources? So digital content and the imperative of digital inclusion pose a huge challenge: how do we help people remain good active members of our democracy when, more and more, they are going to have to be engaged in the digital space?

To keep blocking those cracks in the dam, we're necessarily taking our hands off of other things. So we have to make a mission-driven assessment: how do we align our mission with changing formats and the aim of digital inclusion? For example, our library has a local history digitization project. We are scanning lots of material, but I also have a drawer full of floppy disks. In twenty years, with all of the content that we're digitizing, are we going to be able to access it? In twenty years, will we all have become Neo from *The Matrix*, where we will all just "plug in?" Will be able to check out a little disk from the library and then suddenly know Kung Fu? Maybe that's where we're going, but the question of where we're going in twenty years is not really a question that we can or should answer. We need to keep track of digital developments, to see where we're going. We need a staff that is not risk-averse, a staff that is willing to try new things, a staff that—to change metaphors—is enabled through training and other skill development to stay on the bus. We may always be running behind the bus, but we, at least, have to hang onto the back. Ideally we're leading the bus, but right now we just have to get onto the bus.

Let me push on the connection between format and privacy. If you think about our catalogue systems now, people want the Amazon experience. For example, I loved *All the Light We Cannot See*.⁹ How about the other people in my community who loved *All the Light We Cannot See*? What are they reading? Can we provide links among readers of similar tastes while maintaining our commitment to keep their privacy?

The question gets raised a lot: if people don't care about their privacy, should we care? I would argue that we should continue to care because, if you go back to that foundational focus on maintaining an open democracy where people have access to read what they want to read without being judged for that, that's our role. We carry that.

The big question, in other words, is: how do we find ways to meet our communities' needs while still staying true to the values that keep us grounded? It's really important to remember that digital content and digitization amount to a huge piece of what we do. These phenomena touch almost everything. But they are not everything. What we do is about people. What librarians do is connect with people. Who else in most of our communities bring together the schools, the city, institutions of higher learning, religious institutions? Who does that? The library does that. The library is a public forum.

⁹ ANTHONY DOERR, *ALL THE LIGHT WE CANNOT SEE* (2014).

Where do people hold the public discussions when city council is considering a controversial proposal or when city council candidates are running for election? Who holds those debates? The library holds those debates. We are a place people go to hang out by themselves. We are a place where people go to hang out with each other.

There is, in short, nothing else like the public library. When we advocate for privacy, intellectual freedom, and digital access, the policies for which we are advocating have very real implications for what happens every day in libraries. It's really important for us as librarians to stay focused on the connections between our policy choices and the everyday impact on the patrons who use our libraries.

Peter M. Shane: Thanks very much, Rachel. Damon?

Damon E. Jaggars: It's always dangerous to go last. You can't just repeat what others have said. But as someone coming into a new position at a new university, I'm thinking quite a bit about the dynamics of change that research libraries are facing. So this discussion is quite timely for me. But let me step back a bit. We are sitting in a library at The Ohio State University (OSU), which, as you can see, boasts wonderful facilities and has deliberately focused over the last decade or so on its physical plant to ensure that it does have beautiful, welcoming, safe facilities for students and faculty. However, by maintaining this intense focus over a such a long period of time on facilities improvement—a lot of money was raised and a lot of organizational effort was expended—there was a relative lack of attention on the digital infrastructures that many of us in the research library community have been building out over the past decade.

To be clear, the previous focus on library physical plant was the right choice at the time for Ohio State, given what I've learned about the state of library facilities here in the not-so-distant past. But OSU Libraries are now confronted with someone like me coming in thinking: "Okay, we're in a better place in terms of our physical facilities, but how do we take the next step of where we need to go as a research library?" In responding to that question, we clearly have to focus on how the digital shift affects our research library organization and its roles within the university.

The issues on which we will need to concentrate revolve around building out digital infrastructures, but with a multi-faceted "take" on that challenge. The first aspect is the infrastructure itself. OSU Libraries need to figure out how it's going to build and maintain what we might think of as the "digital stacks," with access and preservation capacities that are equivalent to what we've done for print. We're not there yet, and getting there will entail not only a substantial

investment of dollars, but also significant change in organizational focus and in the skill sets we need to develop in the people who make up the organization.

Another key aspect of this evolution is helping the university—and this is my job as Director—understand that making the digital shift is not just a library problem. It's a university-level problem both in terms of paying for it and for solving problems that go beyond financial considerations. For example, many of the issues we must confront if we are to better support data management and aspects of research computing are also problems for the Office of Research. Some are problems for the Office of Sponsored Projects, which has a mandate to manage compliance for university researchers. Some are technology infrastructure problems for our colleagues in central IT. In other words, as a research library, we have to build out new services and infrastructures that are critical to the success of faculty research and student learning; but this will have to be done in a meaningful, potentially transformational partnership with other campus entities, in alignment with university-defined research and teaching missions.

Just as important are the human aspects of what building this digital infrastructure will require. To illustrate, let me build on Rachel's discussion of local history digitization at the Bexley Public Library. Evolving digital technologies have enabled new research and teaching methodologies, and these, in turn, affect the modalities—the forms in which our cultural heritage is produced—that we in research libraries collect over time. To give a quick example, I worked at Columbia University before I joined Ohio State, and a number of years ago, the Rare Book and Manuscript Library at Columbia acquired the papers of the poet and musicologist Amiri Baraka, known in his younger years as LeRoi Jones. The library received the normal ten, twenty or thirty boxes of paper and other stuff—and there was some great stuff in those boxes, let me tell you. But we also received decades' worth of email in obsolete formats on hard drives. This email archive is this important intellectual figure's correspondence over a large period of his career. It includes his correspondence with other Beat generation writers, publishers, musicians, political figures, activists, and more—all critical fodder for future research in multiple areas. So, we in research libraries need to figure out not just how to preserve this born-digital content, but also how to enable access and support the new research and teaching methods that evolve for working with these and similar materials over time. We need the people—librarians and technologists—who understand how to move us forward toward meeting these goals.

The pressures that the digital shift puts on the library workforce will affect not only new recruits but also dedicated library faculty and staff who are more mature in their careers. Library administrators have an obligation to help all of our people, junior and senior alike, to be successful in a rapidly changing work environment. Doing so will no doubt require new approaches for developing a broad swath of skills within our organizations to address new ways of working with faculty and students. A faculty member told me earlier today that what he needs from us—from our library faculty and staff members—isn't a service relationship, but a partnering relationship. He wants to build partnerships with various aspects of the library because, to paraphrase his sentiments, he's mature in his career, he doesn't have the digital chops that his graduate students need to develop to be employable inside or outside of the academy, and he's looking for any place he can find within the university that can help provide the necessary support to help him and his graduate students effectively move forward with their work. The implications for how we think about and scope the research library's role in supporting our evolving research and teaching missions are eye-catching.

When we're talking about the changing workforce in research libraries, I believe that we're really talking about expanding what we mean by "librarian," the people who do library work. And we're also talking about significant change in where these folks' professional preparation derives. This might be true to some extent in public and law libraries, but if we look at the workforce in any university research library, I bet that sixty to seventy percent of the workforce is made up of people who are not traditionally trained "librarians" in the sense in which we have defined that term in the past. These people, and the new skills and approaches they bring to our organizations, broaden our conceptions of what doing library work means and push the idea of who a "librarian" really is. Many of these people are coming to us with deep technological and methodological expertise, often with an understanding of research and teaching from an academic discipline that can help us build and maintain the types of partnering relationships I mentioned earlier.

The last thing I'll mention, which is extremely important for the success of OSU Libraries and echoes some of what we've heard from the other speakers, is the necessity of helping our people develop the meta-cognitive and learning capacities needed to survive and thrive in this volatile operating environment. Change is incessant; it's never going to let up and growing capacities to exercise active control over the ways in which one learns, interacts with others, and evolves as a

professional might be the most important thing library leaders can do to prepare our libraries for future success. I think I'll stop there.

Peter M. Shane: Jeffrey, as an academic studying and designing (as well as using) libraries, how do you react to the thoughts of these library directors?

Jeffrey Schnapp: If Damon was already in a difficult position being the last librarian speaker, I'm the last of the last. My challenge will be to see if I can pull together a couple of threads that run throughout the presentations and maybe shed light on them from a slightly different angle; different because a lot of these are questions that I come at from the perspective of the kinds of designs and physical infrastructures that can enable meaningful answers to the sorts of challenges that libraries face today.

It's essential to start by recognizing that one of the reasons why the conversation about the future of libraries has been so animated is that there is a false perception out there: that the question of the future of libraries is somehow resolved by the fact that the smart device in my pocket or on my desktop already grants me access to a library exponentially greater than the Library of Alexandria. However transformative, technology doesn't "solve" questions of access to information and knowledge; rather, it reshapes modalities of access, creating new opportunities as well as problems and needs that have to be confronted in a way that is sensitive to the heterogeneous needs of the institutions and clienteles served by the libraries represented on this panel.

This leads contemporary architects and designers to struggle with the question posed by Rachel: "What is a library going to be in twenty years? How can it serve both present and future generations of patrons?" Buildings usually endure for far longer than twenty years. So how to answer the question? There are bold responses here and there, like OMA's Seattle Public, Snohetta's North Carolina State, and David Adjaye's Idea Stores. But the temptation is strong to simply punt: to build empty boxes in the hopes that future librarians will supply future answers.

The most imaginative library projects of the past decade are all built on a conviction that has been anticipated in others' remarks here: namely, that a database is not a *place* (but a library *is*). Whatever the affordances of databases—whatever the degree to which they can or cannot provide authenticated and authoritative information; supply the sort of context that makes information intelligible or meaningful; support new models of learning and rigorous inquiry—humans learn and develop social practices in

physical locations. Knowledge is always *located* knowledge and is never reducible to mere information.

Information is an abstraction; as the poet Mark Doty nicely puts it: “the driest and least revealing of essential twenty-first century words.” The way that humans actually engage with information is through complex cognitive processes that involve many more senses than just those involved in recognizing numbers or textual patterns on a page. All of which brings us to a recognition that libraries are, first and foremost, places. So the real questions become: What kind of places do we dream of or require? What kind of place is a 21st century branch public library versus a university research library versus a library that serves a community of lawyers in training? Libraries come in many different shapes and flavors, and throughout their history, they have never been reducible to the collections—the “data”—that they harbor or simply served as storage facilities. Libraries have always been places of connection.

But what kinds of connections are meaningful within a specific setting? Various contexts, often with highly distinctive needs, have already been touched upon in the course of the panel discussion. Rachel noted the fact that, in many communities, the public library is the last remaining civic space. Shopping malls are not civic spaces; public libraries are. Sara noted that, in the case of communities of researchers, giving access to information is not at all the same as transmitting a set of research procedures that allow for critical, contextual, or creative use of that information. Learning is a community-based process within a Faculty of Law. It presupposes face-to-face interactions as well as off-site and online interactions. So “serving” a community today necessarily implies something different than it did only fifty years ago, particularly given the fact that the true façade of many libraries today is the web portal through which they interact not just with local but also with global patrons. This altered concept of service and the potential for meshing the local and located with the global and delocalized pose rich opportunities for public libraries in particular. Rachel alluded to local history and archive projects, which now have the opportunity both to catalyze local conversations and to address vastly expanded off-site audiences.

I’d like to pick up on a couple of other points mentioned by my fellow panelists. The first is, again, to underscore the significance of the civic functions performed (often invisibly) by public libraries in particular. I recall reading a study that demonstrated how, in addition to broadband access, finding employment was one of the prevalent motivations for patron recourse to branch public libraries in the

United States.¹⁰ The same is unlikely to be true of a specialized research library. But it draws our attention to the key fact that libraries play a multitude of different functions. We live in a world of libraries, not of *the* library; so the nature of the catalyzing and connective processes libraries undertake is inherently diverse and no less diverse than the architectures that support and sustain them.

A second question, touched upon by Damon in his closing remarks, is of special concern to me: “What does knowledge look like in the 21st century? What are the new and distinctive forms of culture, scholarship, and science that are emerging today? And how might libraries catalyze and animate these emerging practices?” I’m a cultural historian, so let’s limit ourselves to the domain of history for the moment. On one hand, scholars today have the possibility of bringing entire repositories that were once locked up in archives and vaults online in critically and historically informed ways, transforming them into a public resource, not just for the community, but for humankind as a whole. On the other hand, scholars are able to engage in large-scale, distributed processes of knowledge production and sharing. The ways in which those results are developed and disseminated, the forms that they assume, the media in which they are conveyed, are increasingly hybrid and multichannel (to the point of requiring version controls of the sort once limited to the world of software). In an environment of this sort, rather than stepping to one side or serving as a mere support, libraries are increasingly called upon to become the laboratory; the place where knowledge is actually produced and disseminated.

Thirdly, I want to sound a note of caution and emphasize an abiding challenge: preservation. One of the enduring functions of physical libraries since the beginning of human history has been the preservation of the human record and the maintenance of long-term memory. But the very effervescence of electronic resources renders them extraordinarily fragile and volatile. The oldest digital files in our possession are less than half a century old: a drop in the bucket in terms of the history of civilization. As of yet, there exist no definitive answers to the questions of long-term digital preservation. But there are practical remedies at hand: open access and unconstrained duplication; ensuring a high degree of redundancy across media and

¹⁰ JOHN HERRIGAN, PEW RES. CTR., LIBRARIES AT THE CROSSROADS (2015), http://www.pewinternet.org/files/2015/09/2015-09-15_libraries_FINAL.pdf [<https://perma.cc/PZ4F-F7EQ>].

platforms; promoting a heterogeneous information ecology that doesn't put all information resources into a single basket.

Much more could be said about this matter and the others that I have briefly touched upon in these remarks. But what, I think, can fairly be surmised from all of the presentations on this panel is that, for all the immediate challenges that libraries face, be they social, economic, or political, it is critical to libraries' future that they envisage themselves as actors and catalytic agents within society at large.

Peter M. Shane: Thank you so much. I'd like to end this particular conversation about libraries with a note about librarians. In conversation earlier, Rachel mentioned to me that she thinks librarians have historically been reluctant to take public credit for their work, that they have been afraid to "step into their own power." To put that power in perspective, I'd like to share a paragraph from Jeffrey [Schnapp] and Matthew [Battle]'s book about libraries. It's a passage I've marked in the margin with multiple stars. In talking about the roles of librarians, they say:

The networks that deliver information, which include the Internet, but also physical and social infrastructure of all kinds, function best in the context of participation. Librarians ferment and facilitate such participation, helping citizens to forge their own connections with the life of information. The overlapping systems and infrastructures combine in complex and surprising ways, requiring multiple intelligences to disentangle. Where librarians once acted as gatekeepers guarding limited resources, they now become lock pickers and safe crackers. What they guard instead is our very participation in information culture, our opportunity, our privacy, and our freedom.¹¹

So that's power worth stepping into, don't you think? The future of libraries in the digital age is going to depend on it.

¹¹ JEFFREY T. SCHNAPP & MATTHEW BATTLES, *THE LIBRARY BEYOND THE BOOK* (2014).