MEDICAL LIBRARY ASSOCIATION

ORAL HISTORY COMMITTEE

INTERVIEW

WITH

J. MICHAEL HOMAN, AHIP, FMLA

Interview conducted by Rick B. Forsman, FMLA

December 18, 2015

Edited by
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Project Director
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Consent Form for Oral History Interview (2002 version)

This confirms my understanding and agreement with the Medical Library Association (MLA) concerning my participation in an oral history interview as a part of MLA's Oral History Program.

1. I agree to be interviewed by Rick B. Forsman_____
on December 18, 2015_____ . I understand that my interview will be recorded and that a transcript and edited version of my interview will later be created. I understand that I will be given an opportunity to review and edit the edited transcript before its release.

2. I hereby grant and assign all right, title, and interest to any and all recordings and transcripts of my interview including copyright [and all rights subsumed thereunder] to MLA. I will be given a copy of the edited transcript for my personal use. I understand that the transfer of these rights to MLA confers no obligations on MLA to promote, market, or otherwise make publicly available copies of the interview.
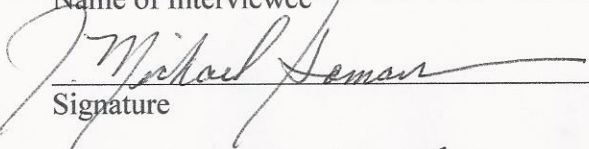
3. One or more edited and/or condensed versions of the interview, approved by me, may be disseminated by MLA, as it deems appropriate.

4. I understand that the original, unedited recording of my interview and the original unedited transcript will be maintained in the MLA archives at the National Library of Medicine, or at such other place as MLA may reasonably designate, and may be made available to researchers who have demonstrated that they have appropriate qualifications. I further understand that the original unedited recording and/or the original unedited transcript will be made available with the following restrictions (Check one):

　　　　　X　　No restrictions

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_J. Michael Homan_____　　　　_Rick B. Forsman_____
Name of Interviewee　　　　　　　　　　　　　Name of MLA Interviewer(s)
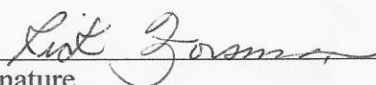
_[signature: J. Michael Homan]_____　　　_[signature: Rick Forsman]_____
Signature　　　　　　　　　　　　　　　　　Signature

Date 12-19-2015_____　　　　Date___12/19/15_____

Accepted by:___[signature]_____　　Date_2/26/16_____
　　　　MLA EXECUTIVE DIRECTOR

Biographical Statement

J. Michael Homan, AHIP, FMLA, is renowned throughout the health sciences library community for his consummate interpersonal and organizational skills, exceptional delivery of information services in diverse environments, and commitment to continuous innovation. His lifelong interests in information retrieval, online training, and access to biomedical literature have been threads in his career. His contributions to publishing, the role of the librarian, and knowledge management are rooted in his belief in the importance of volunteerism.

After deciding upon a library career at Lewis & Clark College in Portland, OR, Homan received an MA from the Graduate Library School at the University of Chicago in 1971, followed by a post-master's internship at the University of California, Los Angeles, Biomedical Library (now Louise M. Darling Biomedical Library). He was hired as a MEDLARS search analyst at a time when the National Library of Medicine was transitioning from batch process searching to online searching. He attended the first MEDLINE class at NLM in the fall of 1971 and became a preeminent MEDLINE trainer for the Pacific Southwest Regional Medical Library Service, as UCLA assumed responsibility for training librarians for the western half of the nation.

Homan's next positions continued to give him experience in contrasting settings, where he repeatedly juggled many concurrent roles and responsibilities. He was head of information services at The Upjohn Company (1979-1988) in Kalamazoo, MI, which presented the opportunity to work in a sophisticated IT environment in support of pharmaceutical research and development efforts. As assistant university librarian for the sciences at the University of California, Irvine (1988-1994), he was responsible for the planning and construction of a new consolidated science library, but was also presented with the challenge of adding other major administrative responsibilities due to campus personnel issues. These experiences culminated in the invitation to become director of libraries at Mayo Clinic in Rochester, MN, where he served from 1994 until his retirement in 2014. He provided leadership for information needs at multiple geographic sites, introducing automation and reorganizing services and staffing schemes.

Homan served as president of the Medical Library Association in 2000/01 and of the Association of Academic Health Sciences Libraries in 2004/05. He was MLA's managing editor of books from 1990-1996 and editor of the *Bulletin of the Medical Library Association* in 1996-2000. He promoted early steps to move toward electronic access to the table of contents and subsequent full online content of the journal through PubMed Central. He represented the voice of librarians on the inaugural PubMed Central National Advisory Committee and the editorial board of *Academic Medicine*. His Janet Doe Lecture in 2009 analyzed the critical role that mediated information services play in the evolving digital ecology. He is an MLA Fellow and was honored by the association with the Carla J. Funk Governmental Relations Award in 2011, the President's Award in 2014, and the Marcia C. Noyes Award in 2015. He served twice as a mentor in the NLM/AAHSL Leadership Fellows Program. On the international scene, he was an elected delegate to the International Federation of Library Associations and Institutions (IFLA) Health and Biosciences Section.

Medical Library Association Interview with J. Michael Homan

[WAV file #1]

Rick B. Forsman: This is an interview with J. Michael Homan for the MLA Oral History Project on Friday, December 18, 2015. The interviewer is Rick Forsman. Michael, thank you for hosting the conversation in your home in Rancho Mirage, California. To begin, let's talk about how you entered the profession and your early career. So first question: When did you first become interested in possibly working in libraries?   What influenced you to go into librarianship?

J. Michael Homan: I think there really was a confluence of a number of things. The first was that my mom and dad were both in health-related professions at Oregon State University. They'd both gone to Oregon State University—my dad in pharmacy and my mom in nursing. And my dad opened up Homan Rexall Drugs in 1940 in his hometown—my hometown—in Enterprise, Oregon. Dad's best friend, hunting buddy, confidante, happened to be our family physician, who I got to know and respect. So that's the health-related background of the family in general.

And then there was a librarian in the family—actually not a trained librarian but my paternal grandfather's older sister. Great-Aunt Bertha was the founding librarian of Enterprise Public Library, which was constructed in 1914 with funds from Andrew Carnegie. Aunt Bertha was the librarian for nearly fifty years. So I certainly grew up knowing Aunt Bertha. And it required a visit to the library frequently. Actually, Aunt Bertha was a little scary. My grandparents' apartment in town—they had moved from the ranch to town—was across the street from the library. If I visited them, they would always say, "Well, now, have you been to the library?" and of course I would hopefully be able to say, "Yes."

So I was encouraged to read from an early age, which I think was helpful. When I would visit my grandparents' home, they would have the Portland *Oregonian*. Before I was allowed to look at the funnies, I had to read some of the news reports, the actual news. There was this sort of training that you can't have fun until you've actually done some other work. And then I remember that my mom and another woman in the local community subscribed to the *New York Times*, the Sunday edition of the *New York Times*. Of course, because this was the 1950s, it would come a week late because it was sent from New York or a distribution center, probably, in Oregon. I would get to read that and enjoy that. My mom's housekeeper was an English lady, and her family would send her the *Times* of London from time to time, so I would get to read that. And our housekeeper would point out, "Well, there are the court appointments for the royal family for this week." And then I spent summers in Portland with my aunt and uncle and first cousins, and I remember loving to go to the beautiful Multnomah County Library, which was a beautiful Georgian building in downtown Portland and of perusing that area. I don't remember ever checking out any books from that particular library but enjoying being in that ambiance.

And the other part of that confluence of events was that I was early interested in oceanography, probably because my family spent summer vacations at the Oregon coast. So I had this general interest in science. And then at some point along the way, our family physician, who was my dad's best friend, suggested that I might like medicine.

Actually, I started out at Lewis & Clark College in Portland in a pre-med curriculum. At some point in that pre-med curriculum of biology and chemistry and all of those courses—in addition to the core courses that the college required, such as the history of civilizations and the history of religion and so forth, I thought that biology and chemistry seemed a little stale and somewhat uninteresting. I switched to history in my junior year, which barely allowed me to graduate with a degree in history because I had had so much science in my freshman, sophomore, and junior years. I remember that some of the pre-med students were hypercompetitive about getting the best grades so they could be assured of getting into medical school, and I actually found this pretty distasteful, but of course understood why they needed to fight for the grades. Not all of them were like that. I also remember toying with the idea of becoming an Episcopal priest, as I had been confirmed in the Episcopal Church during college after having been raised in the Congregational Church—the United Church of Christ.

So all of this was coming together. I was going through a crisis in my junior year when I realized I wasn't really interested in pre-med and biology and chemistry. And I took some tests offered by the college counseling department just to see what areas other than medicine and science that I might be interested in. The test had some pointers towards the publishing industry and librarianship. That was sort of a great "aha" moment for me. And I had a good friend in college who had actually been born in my hometown but had been raised in Portland—we became friends—and she'd always wanted to become a librarian from the earliest days when she was in grade school and was indeed pursuing that goal. She said, "Well, it's kind of a general area. Why don't you try it? If you don't like it, you can always do something else." Since I had been struggling with what to do, I decided, well, that was pretty neat. Maybe I should do that. I actually saw her at my forty-fifth Lewis & Clark College reunion in Portland recently. She retired as a senior administrator of the Boise Public Library, so she was a public librarian all of her adult life.

But first I had decided—this was the Vietnam War era—that I should try to enlist in the Navy. My dad had been in the Navy in World War II and so that was a natural inclination to do that, but also it was not the infantry, so I thought that would probably be better to be on a ship rather than on the land. However, it turns out that my asthma condition, combined with my poor eyesight and chronic foot problems, got me listed as 4-F—that is, "unsuited." They said, "We would normally attempt to send you to— because you have a college degree—officer's training school, but you can't do that either." The examining physician just looked at me and said, "Do you really want to enlist in the Navy?" And I just had to be honest and I said, "Well, no." So he said, "Get out of here." So that was that.

So I decided to pursue librarianship, with all of these things coming together, and took a programming course at Portland State University. It was a Fortran program, really a science programming language that they teach students. I used the Portland State University library, which is in downtown Portland. And I almost changed my mind because there was this old prune of a librarian as a reference librarian at the reference desk at Portland State. Just horrible. Not nice, not helpful.   And I thought, I don't know if I really want to go into this profession if that's what I'm going to turn out like—this old prune of a librarian.

But I decided to go. I applied to two library schools, one I felt sure of getting into. I had good grades at Lewis & Clark. I was pretty sure I'd get into the University of Oregon, which had a relatively new library school. And the other school I really wanted to go to and I applied to was the University of Chicago. But I wasn't sure that I would necessarily get into that. Well, as it turned out, I was accepted at Chicago but not accepted at Oregon. Oregon required two foreign languages. I had taken French all through high school and college so I had a very solid foundation of French but no other foreign language.

F: Two languages is an unusual requirement.

H: It was an unusual requirement. Other library schools actually did require two languages at the time. Since it was a new library school, or established within five or ten years of when I was applying, I suspected that might have been the issue—that they wanted to be assured of accreditation, so they wanted all of their applicants to have the basic requirements, which for them was two languages.

F: Yes, so they needed to be rigorous about acceptance.

H: No matter the fact that I was an Oregon resident. Chicago required two languages as well, but they didn't care if you came with them; you just had to acquire them through reading examination by the time you graduated. So I did go to the University of Chicago. They accepted me with a proviso that I pass the university reading examination. During the two years that I was at Chicago, I took a correspondence course in German from the University of Wisconsin and passed the university's reading examination in German so I could graduate with the MA degree.

I went to Chicago, and I took the train—the old Union Pacific from Oregon to Chicago's Union Station—and it was quite a trip. Never been to Chicago or any city that large. And the only city I'd been to that was near that size was San Francisco, which is, of course, significantly smaller than Chicago.

That's how I got into librarianship. It was a confluence of events. Initially interested in science and switching to history, family background. I kind of backed into it, but it was a good backing into, I think.

F: And it sounds like your early background really brought together a number of different threads that poised you to move logically into health sciences librarianship.

H: Yes, although I had decided that I didn't want to move into medicine. Because I wasn't all that interested, as it turns out, in the sciences, I didn't pursue medicine. Of course, now I know that the basic sciences are just a background for the clinical sciences, and the whole language of medicine is quite different than biology and chemistry that I was thinking I really didn't care for in undergraduate college. But nonetheless, that pointed me in a direction that was more comfortable for me. I think the competitive nature of medical schools at that time was part of the decision too. If you have to do all of that to get into medical school, what kind of people are those people that are actually practicing medicine at the time—although I really trusted and liked our family physician. But he was a completely different generation— my father's generation—which is quite different than the generation that I was with, of course.

F: Yes. And certainly, at the time that you and I were undergraduates, the overall climate for competition to get into medical school was very difficult. So people were almost cutthroat at times.

H: They were. And remember, this was before the late '60s and '70s, in my case, [Homan received his undergraduate degree in 1969] where they started establishing new medical schools. So there was a limited number of medical schools and it was not until the late '60s and '70s that there was this burgeoning of new medical schools that opened the floodgates for additional people. In my case, I probably would have attempted to go to the University of Oregon—or the Oregon Health Sciences University. It was a traditional academic center with a limited number of places for medical students, primarily based on the cost of educating students. They were only accepting people with 4.0 averages and those people who could be highly competitive.

F: So you went to the library school at Chicago with an expectation that you were not interested in the sciences. When in the process of going through the library program did you change your mind?

H: Well, my dad, my family, had paid for my entire education—of course, undergrad at Lewis & Clark, which wasn't cheap; it was a private college. Even in those days it wasn't cheap. And he was very willing to continue with graduate school, no question about that.

But Chicago had, in the Graduate Library School—which at that time was located in the old Harper Library, the old university library before Regenstein was built—had posted all kinds of opportunities for fellowship funding. In particular, the University of Chicago Graduate Library School had a significant number of grants from the National Library of Medicine [NLM], in particular for their experimental SDI [Selective Dissemination of Information] project. They were offering this fellowship underwritten, of course, by the National Library of Medicine. The dean of students, Ruth Carnovsky, suggested that I might look into this, that it didn't require studying science in the university. Because I

had this very strong background in science, I would easily qualify for this funding, which would pay for my graduate education. And I thought, oh, my dad's going to like that.

So I applied for it and was kind of a shoo-in because of the strong science background. I started working for the experimental SDI project, whose offices were in the old Billings Hospital—near the emergency room entrance. We had to keep the doors shut because gurneys would come by in the hallway and we didn't want to see that kind of thing happening. I began work pretty quickly after I started. I don't think it may have been the first quarter, but maybe the second quarter—certainly, early on in the first year that I was funded by the U.S. Public Health Service for the training. And I pretty quickly began work on the experimental SDI project—not on my thesis project, which was required, but just on the minutia that's required for research projects—maintaining the data and that sort of thing.

H: And were there other programs like the medical library training program in Chicago that were specific to preparing you for a health sciences environment?

H: Well, some of the features of the Chicago program, which I really liked, and one of the reasons I applied to Chicago... The other school that I was terribly interested in, too, was Columbia, but I thought my parents would have a conniption if I decided to go to New York. Chicago was almost beyond the pale, too, for a kid from rural Oregon.

But one of the things that really struck me as interesting and challenging as well was the fact that Chicago had core courses. So you took reference and public services, and you took cataloging descriptor analysis, and I could take science reference—not specifically medical, but science reference. But for other courses—there were a certain number of courses you needed to graduate—you were encouraged to take graduate-level courses in the other divisions of the university.

That was very attractive to me. I ended up taking social psychology from the psychology department. I took science policy formation from the political science department. I remember in the political science department, I went into that graduate-level course and they were all graduate students. Chicago is primarily a graduate university, not undergraduate. And so all the students in this political science upper-division course were political science majors, and they had a vocabulary and an understanding of the area, which I did not have. And the first lecture I thought, I'm going to have to drop this course because I can't understand what the professor is saying. I don't have the vocabulary. But through a lot of study and reading, I really actually got a pretty good grade—I think it was a B in this upper-division political science course—and really enjoyed it. But science policy formation talked about the federal government or state governments and how they enact policies that impact research and other sciences. It's a fascinating course and very broadening for somebody who's going to be going into science or medical libraries.

F: But also required you, essentially, to do your own self education.

H: Huge amount, yes, because you were in these upper-division graduate courses at a major university, and the professor is not going to slow down or speak at a lower level of vocabulary just because you happen to come from the Graduate Library School. So you really had to pull yourself up by your own bootstraps.

Another fascinating course was medical sociology, taught by a professor in the medical school, a researcher, though, in the medical school—an MD/PhD who was writing a book on medical systems of other countries—Sweden and the UK, which differ greatly. We would really read the manuscripts of this book he was preparing for publication. Then in small groups—it was just a small course; it couldn't have been more than twelve or fifteen students—we would chat with the professor about that. And he would compare and contrast Sweden, or the Scandinavian health systems, or the UK National Health Service with his understanding of the United States. Very, very broadening, because I had not for a moment thought about the United States as having a health system. I just went to our family physician when I had a problem. I didn't realize there was actually a system and people had to pay for things and couldn't pay for things. So it was terribly interesting, not only interesting, but very, very broadening. Those are some of the courses that added to not only my understanding of medicine, and ultimately when I actually went into medical librarianship. But just a broadening kind of experience from Chicago.

F: It's also interesting to me because of the multiple medical library training programs that were distributed around the country that the U.S. Public Health Service paid for; each one had a particular different approach to the program. And I guess fitting with the environment at Chicago, it sounds like it was very much up to you to set your own course.

H: It was, in terms of the courses that you needed to graduate. And of course those courses had to be relevant. We did have faculty advisors. Don Swanson, who was the dean of the Graduate Library School who had a PhD in theoretical physics from Berkeley, was my faculty advisor. There were hundreds of courses that you could potentially take, but because he knew I had a strong science background and potentially would be able to rise to the occasion in these graduate-level courses, he suggested some of the courses. The social psychology course, I just read the prospectus and I thought, oh, that sounds interesting. Chicago was famous in that area at one time, and I had a very famous professor. So that was really great. And the courses, because they were all graduate-level divisions, were all very small, and people were quite collegial. The students didn't hesitate to challenge the professor in a very Chicago way—a sincere way, not like you might hear now with all our political conventions going on, where people are not as courteous as they might be. But, yeah, it was a grand time.

F: You mentioned several times the Selective Dissemination of Information project that you were working on—the SDI. That was early on in the days of SDI. Tell me a little bit more about that.

H: Well, I think libraries, and research libraries in particular, had been doing SDI manually for many years. For instance, if you were in the medical school, you might offer a SDI service—or current awareness service, some people called it—to faculty, where the librarians would scan *Index Medicus*, for instance, for relevant articles, have assistants copy those out, and supply a bibliography to the physician. Of course you couldn't do much of it because it was so labor-intensive, and you missed a huge amount because of the way indexing was done in terms of the printed index versus the online index. Chicago's notion was that, through automation, you should be able to establish mediated SDI services, which would be a great assistance to faculty in particular, but graduate students as well, who would end up seeing more of the relevant literature, not miss the relevant literature, whereas in a manual system all of that is so happenstance.

F: And very limited by the amount of time that you could spend on it.

H: Absolutely.

F: So the automation would give you a much more comprehensive result.

H: It would give you a much more comprehensive result. Chicago had subscribed to agreements with NLM to have the MEDLARS [Medical Literature Analysis and Retrieval System] tapes sent to Chicago; had agreements with *Chemical Abstracts Service*, *Biological Abstracts*, to have those tapes sent to Chicago so that some of these experiments could be done. Julie Virgo, for instance, who was part of the funded program of the SDI, her thesis at Chicago had to do with a comparison of manual indexing of *Index Medicus* versus MEDLARS. What the difference was and what the recall and precision efforts were there.

Chicago was really on the cutting edge, I think, of the realization that automation could be a real boom to medical librarianship and had struck out to get the tapes and to really do some experiments. With a dean who was a theoretical physicist, he really did know how to do research. There was actually a faculty member at Chicago who was in artificial intelligence. So very early on they were interested in artificial intelligence and automation efforts and so forth. This was way before even the library management systems. Chicago, as well as all the other big research libraries, had these massive rooms filled with a card catalog and incredible filing rules for the cards and so forth. And of course, being a library school student, you have to learn about cataloging and the various cards that it created for each reference. And I just thought, boy, if this could be automated it would be great [laughter].

F: And then while you were at Chicago, how did you become interested in UCLA or know that there was a program there that you would want to follow up with?

H: Well, to be truthful, I learned that there were post-master's programs. Of course, when I first went to Chicago I had no actual library experience. I had never worked in a library. My great-aunt managed the little Carnegie library in my hometown. I had brief experience at my college library in college and was used to using a card catalog and

finding materials and doing some basic library research, but I had never actually worked in a library. I didn't really know what it was all about. It just sounded very interesting to me. And the beautiful buildings that libraries were housed in...

F: You liked the environment.

H: It was all at some point very romantic. And, oh, wouldn't it be nice to work in the Multnomah County Library, this gorgeous Georgian building in downtown Portland, or even my college library was an absolutely exquisite building overlooking the forest at the campus. And I thought, that would be really neat to work there. But suddenly it dawned on me that I've never worked in a library. I have no idea what it's like to work day-to-day in a library. I've never been a student assistant in a library. If I had, maybe I wouldn't have gone into librarianship. I don't know; maybe I would have sooner. But I learned about the post-master's programs probably in the second year. I was so busy in the first year with all the core courses and things.

In the summer of my first year we all took a medical reference course, which was part of the University of Illinois. It was offered at the University of Illinois, Chicago campus, which was downtown Chicago, but the old medical library of UIC was kind of attached to Cook County Hospital. It's not a very nice part of town. Those of us at [University of] Chicago carpooled down to take medical reference, and of course we worked in that library to do medical reference. And I loved to go to the Crerar Library, which at that time was the library of the Illinois Institute of Technology, which is not too far away, and do my medical reference. I was familiar with using a library for medical reference—and science reference was taught in the Chicago campus—but I never actually worked there.

The post-master's program was terribly seductive because not only could I continue learning about libraries, but I would actually, then, have a basis for my first job. I had nothing in terms of practical library work. It was all theoretical at Chicago. You may take a cataloging course, but you don't catalog. You take science reference or medical reference, but you don't serve as a reference librarian. I had none of that. I had never shelved a book, which is pretty basic [laughter]. So these programs were terribly seductive to me. I applied to two at the encouragement of the Graduate Library School in Chicago, and the two were UCLA [the Biomedical Library's USPHS Graduate Training Program in Medical Librarianship] and the National Library of Medicine, the Associate [Fellowship] Program—although Chicago actually said, "Well, it might be useful if you apply to NLM." They were aware, of course, of the Associate Program. But they also knew that I'd never worked in a library. So my sense was that they were more positive towards UCLA, which was really a true rotation in the different divisions of the library, rather than the Associate Program, which in fact was very focused on special projects, even at that time.

F: And certainly working at NLM is not a typical library environment.

H: And it's not a typical library. Chicago, of course, would want its graduates to be accepted there because they were so heavily funded by the National Library of Medicine,

but they actually were pointing me to UCLA. I applied to both, and it turns out that I wasn't accepted at NLM and was accepted ultimately at UCLA.

However, UCLA usually sent someone around to the various library schools to interview for the program at UCLA. Often Lelde Gilman, who was the coordinator of the program at UCLA, would come around, but she had not come to Chicago. I'm not sure that there were many Chicago graduates who actually ever went to UCLA. Not sure why. But the University of Chicago was very favorably impressed, not only with the university library but also the program, and so Louise Darling called her friend, Minnie Orfanos, who was the dental school librarian at Northwestern and asked Minnie if she would interview me. It was in the wintertime. UCLA called me and said, "We'd like you to go up to the dental school library at Northwestern and Miss Minnie Orfanos has agreed to interview you on behalf of Louise Darling and the UCLA program. And of course I said, "Well, that's fine." When the day came for the interview, I took the Illinois Central Railroad— which was the commuter railroad down to Randolph Street Station. It was winter; it was snowing; it was cold. I trudged up Michigan Avenue across the river to Northwestern's medical campus and finally found the dental library and Minnie. We chatted for quite a long while. She asked general questions, and nothing in particular stood out to me. But her report to Louise must have been positive because I was accepted at UCLA. So that's how I got to UCLA.

People at Chicago thought maybe I would stay in the library at the University of Chicago in some way. The Regenstein had just been completed—the massive new university library—and the Graduate Library School was sort of a wing of the Regenstein. The Regenstein was so large that they actually were hiring, and there were floors devoted to one science or the other science. The old medical library, however, was still in the Billings Hospital area, which was a horrible facility. Great collection, of course, but it's before Crerar relocated to the University of Chicago. My colleagues at Chicago said, "Oh, UCLA. That's in Los Angeles. You're going to a cultural desert." They were just abhorred that I would even consider going to the west coast to Los Angeles.

F: To another major, big city, but not with a very good image in some ways.

H: Exactly. So it was through Minnie Orfanos's good report. And for years after, I would see Minnie, of course, at the annual MLA meetings, and we'd always chat, and she'd always want to know, "Well, how are you doing?" That was great. She had remembered me after all those years.

F: When you first went to UCLA as part of that program, did they offer you options to choose from as far as the work assignments that you went through, or were you assigned to a unit initially?

H: Well, the UCLA program was in conjunction with the [Graduate School of Library and Information Science] there, the UCLA library school. While you did not get another degree—another master's degree—you did take, throughout the year that we were there, a series of courses which were prescribed by the library school. At the conclusion of the

course, you had a formal certificate from the library school signed by the dean. Louise was on the faculty and taught a number of courses—medical reference in particular, I recall. Then you could select from some of the other academic courses. There was a survey course in diseases that most of us—I think all four of us that year—took, because it was a great survey course of the various disease categories and the pathology and physiology related to that. And then all of us took a medical terminology course, because, as you know, medical terminology is quite different than the basic sciences. So we all took a medical terminology course. We took the history of disease course. And I took an upper-division, graduate-level course—no one else did; they took something else, probably—but I took a graduate-level division course on the history of science. That was a real eye-opener after Chicago, where I had these small courses with these distinguished professors. The graduate-level course at UCLA was in a lecture hall that seated hundreds, and all the seats were filled; and the final examination was true-false. Of course, there were so many people taking this course that what could they do? They did have very interesting guest lecturers, including people who had worked on the Manhattan Project at Los Alamos, Nobel laureates that happened to be at UCLA. So it was not an uninteresting course. It was just so strange to be in an upper-division course at another major university and have it so different than what I experienced at the University of Chicago.

F: Where you had such small class sizes.

H: From small class sizes, very tailored kind of thing to a big public university where even the graduate courses can have hundreds of people, and you have really not much access to the professor and so forth. So it was an eye-opener.

We had some way to choose courses. And then we did have a rotation. There were four of us, so four of us had different rotations so that we weren't in the same division of the library at the same time. If I was in cataloging, the other three were in other divisions of the library. We rotated through all the divisions of [Biomedical Library], actually doing work—to the degree that we could or had the expertise to do that. I'm laughing because in the cataloging department, they would give me this research monograph, and I'm supposed to figure out what the MeSH [Medical Subject Headings] heading should be on this research monograph. And this is before I've done indexing training at the National Library of Medicine and had no experience whatsoever. But of course the reviser's there. So we all rotated.

Then they wanted each person, for a particular period of time after the rotations were complete, to be able to specialize if we wanted to specialize in a particular area. We had to select an area that we would be interested in. First of all, because of my history degree—although I didn't really have much history in terms of coursework; I'd had more science than I'd had history—they thought I might be interested in working with Dr. Martha Gnudi, who was the head of the History of Medicine [and Special Collections] Division at the Biomedical Library and regularly worked with the rare books and manuscripts at UCLA—the fabulous rare book library. I chatted with her, but I just was not that interested at that time in the history of medicine in terms of rare books. I was

always interested in history. The other specialization was in MEDLARS and the Brain Information Service. Again, because of my science background, I think the staff at UCLA thought that might be a better match than just standard reference and so forth. So I worked a significant amount of time in the Brain Information Service, which was a part of the [Brain Research] Institute at UCLA, but the service was actually located in the Biomedical Library on the eleventh stack level.

I had done, as a part of my [University of Chicago] thesis, some research on the experimental SDI project, in which I solicited feedback from the recipients of the SDI project to see if the reviews of what the librarians had sent were relevant, not relevant, highly relevant, and to see if that feedback that the naïve librarian searchers had initially sent could be used for learning purposes. Could the naïve librarians actually learn to be better at selecting citations to be sent to these researchers?

That turned out to be of interest to the Brain Information Service at UCLA because they were evaluating their SDI service. The Brain Information Service did hand-scanning of all the journals received by the UCLA library to create bibliographies that they would send to subscribers all over the world, and they would also index these and create a very specialized brain vocabulary—a thesaurus, essentially. They were interested in evaluating how they were doing, and so they thought the technique that I used in the experimental SDI project might be useful to them. I worked directly with Lorraine Schulte, who was at the Brain Information Service at the time, to design a project that we could do. So that was a special project there.

Then I worked in MEDLARS and was trained by the MEDLARS searchers, including Paul Hanson and Jo Anne Boorkman, to do MEDLARS batch process searching, which was very interesting in and of itself. They found out that Chicago was getting the MEDLARS tapes and actually was spinning them in-house to do searching of them and being able to compare and contrast that, for instance, with retrieval in *Index Medicus*, or retrieval of MEDLARS versus the overlapped literature with *Chemical Abstracts Service* or *Biological Abstracts*.

The MEDLARS Search Station at UCLA, which was a part of the [Pacific Southwest] Regional Medical Library [RML] at the time, seemed like a natural for me, and I started doing MEDLARS searches as a Biomedical Library intern. You may be familiar with the MEDLARS searches, but they were punched cards, basically. We had this huge tub file, as big as that couch over there, and the tub file was filled with the MeSH vocabulary. You had thousands of terms and each term had a punched card, or multiple punched cards for the same term, so that they could be pulled out. And there was a MEDLARS assistant whose job it was to pull those cards and put them into a little batch. The MEDLARS searchers coded a form using MeSH, which was the only way you could search MEDLARS at the time, and then using symbols for the Boolean logic—so an asterisk was an 'and' and a plus was an 'or.' You list all the terms handwritten on a data form and hand the data form to the assistant, and the assistant would pull the cards. The cards would be assembled daily and sent airmail to the National Library of Medicine. Three weeks later you'd get the results in the form of a printout. There wasn't even a card

reader machine at UCLA that could handle your little deck of IBM cards. It had to go to NLM. And three weeks later [laughter]…

Then sometimes a researcher wanted to go back in time before the NLM normal computer operations went. The old Honeywell computer was processing these card batches from the seven or ten MEDLARS Search Stations around the country at the time, UCLA being one of the first of them that was established in the late '60s. [Editor's note: The eleven regions of the Regional Medical Library Program each had at least one MEDLARS service center, for a total of thirteen in July 1970.] Bob Braude was the [original] head of the [UCLA] MEDLARS Search Station. The system only went back to—I want to say '66 or '68. I've forgotten exactly now. But tapes existed, data existed, back to '64. But only the Houston Academy of Medicine-Texas Medical Center MEDLARS Search Station—which was a [Search Station] at the time—could process [the earlier] tapes. So if anybody wanted '64 and '65, you also had to send the batch to Penny Worley at the Houston Academy of Medicine-Texas Medical Center [laughter]. So that's how I got to know Penny, because occasionally a researcher wanted to go back that far. The reason NLM didn't normally do that was because the indexing changed. There were no subheadings in '64/'65. And in '66 they put subheadings on, so the retrieval was much more precise. Much better precision and recall in '66. But occasionally they wanted to go back to pick up those two years and they didn't want to have to search *Index Medicus* for those two years.

F: Now, in the work that you were doing in Chicago, and then once you got into this advanced program at UCLA, were there things that you learned about yourself that helped determine the directions for your career and your aspirations?

H: Well, yes. I recall telling you about the bad experience with the old prune of a librarian at Portland State University. And I was never terribly impressed, I guess, with the library staff at my college, although they were not unfriendly or anything. Maybe it was because of the way that I was using, as an undergraduate student, the college library, which was by and large as a study hall rather than as a research environment. And, of course, I had the experience of my Great-Aunt Bertha, who could be a little scary.

I think one of the things that I learned at UCLA and at Chicago was that even though I had a great respect for libraries before graduate school and UCLA, I didn't have an appreciation for their important role in society, not only their general role in society, as great research libraries functioned, or the national libraries, or the public libraries. But I didn't have a great respect for how important they are in the advancement of disciplines, like medicine or sociology, or whatever discipline it happens to be. That, I think, was really important to understand. Part of that came out in the required course in Chicago, which was the history of librarianship, taught by the redoubtable Leon Carnovsky, who had been at Chicago at that time for forty years in the Graduate Library School. He was passionate about the place of libraries in society. And I think it was the realization, too, that I was not being trained just for a job, although a job is needed. You have to have income. But it was the basis of a real profession. It was the difference between a job and a profession, and a profession that could be entirely stimulating and interesting. That, I

think, was something that I didn't have before going to Chicago or UCLA, but I obtained that.

Working in the Biomedical intern program at UCLA and then later as an employee of the Regional Medical Library and of UCLA, you really get to know the staff of the library, which is different than getting to know the faculty of a graduate school. And getting to know the staff of the library really underscores their commitment to the profession, their professionalism. Yes, they have a job. It might be cataloging. But they're part of a profession; it's not just a job. I think that really came through loud and clear at UCLA.

The other thing at UCLA was that everyone was encouraged to volunteer for committee appointments, and this was primarily for the Medical Library Group of Southern California and Arizona [the MLA chapter]. Everyone was expected to be a member of that when it came time that they needed work done, and you should volunteer for that. This became part of the fabric of the staff of the UCLA library at that time. I'm assuming it probably still is. But very, very strong, and coming directly from the top.

F: That came very much from Louise Darling.

H: Very much from Louise Darling.

F: But a strong message that went to all of the staff.

H: Every member of the staff, right.

F: Part of the socialization—

H: Certainly all of the librarians, but even the support staff was very much like that. And of course, Louise was practically worshipped like a god. It was like working for a legend. She already was at the time. Whatever she said sort of went. Of course, it was quite loosey-goosey in terms of hiring and everything. If Louise wanted to hire someone, she just did. There were none of these human resources policies and protections.

One time one of the reference librarians, who tended to have these self-induced health problems, wheeled himself to the reference desk in a wheelchair. And Louise looks out there at that and she said, "Get him off the desk." [Laughter] That's not the image she wanted to portray with that. She generally tried to hire people who were going to be staffing the reference desk who were attractive. She was marketing already. She was so insightful in many ways. But these days, while you might take into account the attractiveness of someone, that is going to be the least of what you're considering for a job. But in those days, hiring practices were very, very different.

F: And as you indicated earlier with the relationship with Minnie Orfanos, people had a very strong network of friends that they drew on.

H: A network of friends, and sometimes they would only see them at the annual meeting. But they would often be in telephone contact or snail mail contact. There was no email at the time. These were people that they had worked with on committees or may have taken a vacation after an annual meeting with. They trusted them. They were friends. That's why I say Minnie Orfanos gave me a good report, but it was because Louise trusted her. Louise didn't have to telephone me even. No one at UCLA needed to telephone me. I just showed up.

F: Very interesting. And then once you completed that advanced program through the library school, you had already been working in the Biomedical Library.

H: Well, I had experience in all divisions of the Biomedical Library, and then specialized at MEDLARS in the Brain Information Service. And there happened to be an opening. Of course, there was always a budget. Louise could just hire her interns. I was the only intern who was hired that year, because there happened to be a place in the MEDLARS Search Station. Now, Amelia was later hired but not immediately. And Vicki went to, I think, the Houston Academy of Medicine-Texas Medical Center, to work with Sam [Hitt].

F: This was Vicki Glasgow.

H: Vicki Glasgow. And Bill Maina went to University of California, San Diego Biomedical Library.

F: And what was Amelia's last name?

H: [Mitchell]. Kassel was her married name. I think she may have gone to a hospital library, maybe, in Los Angeles for a period of time, and then was hired in a reasonably short period of time when there was an opening at the Regional Medical Library. She kind of bounced around a little bit in Los Angeles. She was a native of Los Angeles. Then things started happening with her family, and she eventually moved to Northern California and established a fee-based information service business. She became a [leader] in the [Association of Independent Information Professionals]. She did well. She worked at Biomed at UCLA for a period of time, but not at the time that I was hired. I was hired because there happened to be an opening in the MEDLARS Search Station at that point. Nelson Gilman was the [associate] director of the Regional Medical Library, which included the MEDLARS Search Station, and he went on to be the director of the USC [University of Southern California] Norris Medical Library, so that left a position. It was a sort of musical chairs that occurred at that time. And Betsey Beamish went on to be the consulting librarian. Phyllis Mirsky then stepped up to be the [associate] director of the RML, so that left a position.

F: Lots of changes going on.

H: There were lots of changes, right. Jo Anne Boorkman continued as a MEDLARS searcher, Paul Hanson continued as a MEDLARS searcher, and then I was added as the third full-time MEDLARS searcher at that time.

UCLA also got the *Chem Abstracts* tapes—maybe *Biological Abstracts*. For the research faculty of the medical school we would sometimes do batch process searches of those systems as well. But our primary responsibility after I was hired was MEDLARS. Very shortly after I [began the internship], I was sent to indexing and search training at the National Library of Medicine. I had already experienced and knew how to do MEDLARS batch process searching. But at the time I was there, AIM-TWX was developed. That's the *Abridged Index Medicus*-Teletypewriter Exchange, the forerunner of MEDLINE or ELHILL MEDLINE, and now, of course, the current MEDLINE. [Editor's note: AIM-TWX, with online, interactive bibliographic search and retrieval capability, was tested beginning in 1970. MEDLINE [MEDLARS Online] became officially available in October 1971.] AIM-TWX was developed by System Development Corporation [SDC] in Santa Monica. There were no telecommunications at that point, so if National Library of Medicine staff wanted to search AIM-TWX on the computer in Santa Monica, it was a long-distance call on a trunk line to—

F: On a standard telephone line.

H: On a standard telephone line. And for UCLA, it was a local call. So what we did at UCLA was check all of our batch process formulations against the AIM-TWX database in Santa Monica before it was sent to NLM. Most of the time we hadn't made a mistake, but occasionally you'd find something that we should have checked. AIM-TWX, of course, was on a limited number of journals.

F: Was it a hundred journals?

H: A hundred core journals, clinical journals primarily. But it did include *Nature* and *Science*, *New England Journal of Medicine*, and some of the research journals as well. So there was research literature as well. But that was a real boon to me personally, but also UCLA, because UCLA MEDLARS staff, which included Jo Anne and myself—and then Angie Durso was added as head of MEDLARS at some point there—we all became very familiar initially with online searching, and no one else in the country really was, except the staff of the National Library of Medicine—and a very limited staff of NLM. We became quite expert in manipulating AIM-TWX, and it actually had some very, very nice features that were not included in the original ELHILL [retrieval system].

F: But my recollection is that you had to sit down at a teletype machine and punch in on those awkward keys.

H: You did. And then, of course, the response, particularly if you had to print out a bibliography, it was deafening. And so we had an acoustic lid that came over the teletypewriter exchange. Very shortly, though, we obtained small—they were called

portable but they weighed about seventy pounds—printers that are terminals that had rolls of thermal paper.

F: The Texas Instruments Silent 700.

H: That's right, the TI's. We would use those to do our formulations, and only occasionally then had to resort to the teletypewriter exchange, which was actually located in the Brain Information Service. Of course they didn't like it because it was noisy for us to go over there. Had to open the door between the two stack levels. But, yes, it was very interesting in those times.

F: And I remember what the TI terminals... it was tricky to get the phone seated correctly in the acoustic cup. It had to be in exactly the right position.

H: Oh, yes, it had to be the right size of phone. I remember, after I had worked at UCLA for a number of years, the MEDLARS Search Stations—as you know—went away because of the existence of MEDLINE. At UCLA we morphed into trainers and demonstrating the system to various universities and organizations on the west coast. One time I had to go up and give a demonstration at the VA hospital in Fresno. So I flew up there from LAX with the Silent 700 that was supposedly a portable terminal, but they were heavy.

F: Very heavy.

H: And lug that onto a desk at the library, and was just about to do the demonstration. And I said, "I'll need the phone." Well, the library's phones had not been upgraded. So it had this huge phone with these bulbous ends and it wouldn't fit into the acoustic coupler. We had to get a phone in the hallway and have a line extended down the hallway into the library. I finally was able to do the demonstration. But, yes, the phones had to be the correct size. They had to be modern phones and not phones from the 1940s, which the VA had in the library. Amazing.

F: You may not have run into it in the LA area, but I know, too, people who were trying to do training at that time who had to go into rural areas had problems because of party lines and other kinds of telephone configurations that made it difficult.

H: Yes. In addition to the 1940s phone and Fresno VA, it was a switchboard situation. Switchboard operators had to be instructed not to open the line because it would, in fact, cut the connection. That's absolutely true.

F: It was a very awkward technology.

H: It was, but it was amazing; it worked. I remember in the 1970s going to American Medical Association—I think it was a regional conference in Las Vegas—and being in the booth doing demonstrations and talking about and marketing MEDLINE for the National Library of Medicine and the Regional Medical Library. And of course, we had

the good, old Silent 700. There were a couple of them there doing searches, and you had to be very quick. Usually it was a MEDLARS searcher, the former MEDLARS searcher now training in MEDLINE, because we could very rapidly do an expert search for someone. I remember just being amazed that these physicians, all clinicians—they're not in the research universities. They're just trying to do the best they can by their patient. And they have an information problem and they've not been able to find the information in their standard textbooks. So they'd come up to the booth and say, "You know, I've been having this problem," and we could solve the problem. They would run down the hall with that rolled paper and get more people coming to have the searches done.

I found early on when I was doing the MEDLINE training and demonstrations for meetings that the majority of good use was for patient care, that MEDLINE was really exceedingly good for that. In one MEDLINE class—first we trained all the resource librarians, all the reference librarians of all the big research libraries, and then, of course, the hospital librarians. I remember training a gal from a hospital library in the Los Angeles area and we were talking about the utility of MEDLINE. And she said, "We save lives." Well, it's true.

F: It was. Finally, libraries were able to deliver information at the time and the point of need.

H: Exactly. And to this day, working at the Mayo Clinic, it's not unusual that someone is on the operating table and they will call the library: "We're having this problem. Find it for us—quickly." And trained librarians can.

F: So you were doing a lot of training at that point.

H: Well, yes, after I went to the National Library of Medicine. I joined the library staff in July [1972] at UCLA and then worked as a MEDLARS searcher, just continued MEDLARS searching, which I had been trained to do in the internship. [During the previous year], in the fall [of the internship], the National Library of Medicine was having an indexing course, which is usually about six weeks or two months long. Louise arranged to have me get into that course. The course then was to be followed by the first ever MEDLINE training [November 8-24, 1971], which was a three-week training.

So I went off to the National Library. And it was very nice; they paid me a stipend that allowed me to have dinner out almost every night in Bethesda. There were not that many restaurants in Bethesda at that time, let me tell you. I ate at every one of them. Bill Caldwell at the National Library of Medicine, whose office was on the lower-level Index Section, had arranged for me to have a room in a house on Old Georgetown Road, which is sort of in the heart of Bethesda, which was on the bus route to the NIH Clinical Center, run by Mrs. Remington, whose husband had died many years before—but she always said, "Please refer to me as Colonel and Mrs. Remington." Really kind of a crazy lady. She rented her rooms out to patients that were at the NIH Clinical Center—and then people like me. So I rented a room. I took the bus every day to the Clinical Center at

NIH—a big hospital—and then walked over to the National Library of Medicine. This was three months.

In the indexing course, taught by Thelma Charen and her colleagues, we went through every single section of Medical Subject Headings and the rules behind those. By the time we finished, you are pretty expert at MeSH. Far fewer terms then, in the 1970s, than there are now, but still, you were really very experienced. Then at that point I started indexing at the National Library of Medicine. And Thelma Charen was my indexer reviser. I do remember getting a note from her on pink paper, and the note said, "What unknown indexer out of the golden West forgot to check tag female?" Well, I was indexing ob-gyn literature, and I forgot to check 'female.' Of course it's female. I said, "Thelma, it was tissue." "Doesn't matter. Female." Okay.

There were some very interesting people in the Index Section, let me tell you. Thelma would come down sometimes and have a brouhaha with Stanley Jablonski, the syndrome guy, who was in the Index Section, or she'd have a blowout... These are true blowouts, but they remained friends. Or she would berate Bill Caldwell about something or other. And of course, she had her colored-coded glasses and high heels and this hair always done perfectly. And of course, she had an old Lincoln Continental and she parked in a particular spot; it was her spot. She'd get out of the car—I saw this because I was walking up one day from the NIH Clinical Center—and out of the trunk she would pull a long piece of padding that had been wrapped with plastic but was magnetized, and she'd put that on the side of the car that could be hit by another car—

F: To protect her vehicle.

H: —to protect her Lincoln, yes. She was a character. But she was an incredibly nice person as well.

So the first MEDLINE course was very, very interesting because there was no time slicing—no time sharing, no time slicing of the computer. I remember they had people from different MEDLARS centers around the world, including Inserm [Institut national de la santé et de la recherche médicale] in Paris and somebody in Karolinska Institutet library in Stockholm, and me and June Fulton. It was a pretty large course. There must have been twenty people or something. Maybe less, because they didn't have that many terminals to work on. So we were all there. And the old—not the old—MEDLARS people—none of us were old, chronologically, that is—were used to doing certain procedures in MEDLARS that were wholly inappropriate in the MEDLINE system, and we didn't realize this, necessarily. So the gal from Inserm in Paris, the MEDLARS Search Station in France, was doing a search on some concept and drugs related to this concept. In MEDLARS you just exploded the entire D category, which is all of the drugs, which she proceeded to do in this MEDLINE training course. Without time slicing, the computer handled each job separately.

F: And it couldn't go on to the next job.

H: The entire country came to a screeching halt waiting for that search to complete. Well, it was a good lesson at that first MEDLINE training. First of all, there's a glitch in the system, because they needed time slicing. It was silly not to have time slicing, and they didn't have it when it first came out. Secondly, that the former MEDLARS searchers all needed to be counseled not to do certain things. Paul Hanson and other MEDLARS searchers at UCLA, for instance, used to use the "or/not" logic. We would say, "human or not animal"—'animal' and 'human' being two check tags—to be able to get the literature that was relevant that was not indexed. That would be the psychological literature that would not necessarily have the 'human' check tag. Common to do that in MEDLARS. Well, you can't do that [in MEDLINE]. Well, you could do that now, but it wouldn't do you any good. But then the whole country—the world I should say—came to a halt.

F: Too big a search.

H: Too big a search. I think they had to actually stop the computer from doing that particular search because the software couldn't handle it. So NLM learned a great deal in that first MEDLINE training class.

To answer your question—I got diverted here—I didn't do any training until I came back from the NLM training. I had the two months of indexing training and experience, then the three weeks of the MEDLINE training course, plus the syllabus that they had constructed at the NLM for the training. So I had that in my hand and went back to UCLA. Louise probably knew this months and months before with the development of MEDLINE and the demise of the MEDLARS searching. The MEDLARS Search Station didn't go away immediately, but we continued on for a year or something.   It was very clear then that enough people had been trained and that we could disband with MEDLARS. Louise automatically sees the writing on the wall, long before many people, and she recognized that the UCLA region included Hawaii, California, Nevada, and Arizona, a huge geographic region with millions and millions of people. Hundreds of basic unit libraries—hospital libraries—and quite a few Resource Libraries as well. And she realized that if training was only going to occur at the National Library of Medicine, it would impede the development of the western region significantly, because it's very expensive to send someone to Bethesda for three weeks. And who's going to do it? Not many are going to do that. So that's why she said we've got to have a training program here. So—Michael had just brought back the syllabus.

F: All the knowledge.

H: All the knowledge and the experience of that first MEDLINE training class. So Louise, working with Dr. [Joseph] Leiter and probably Dr. [Martin] Cummings [associate director of library operations and director of the National Library of Medicine, respectively]—she liked both of them very much—arranged to have the first MEDLINE training class outside of NLM occur at the UCLA Biomedical Library.

F: Leveraged your new expertise.

H: Yes, absolutely. But luckily, Jo Anne Boorkman was there, who had at least one more year, if not more, than me, searching MEDLARS and knowledge of Medical Subject Headings. Angie Durso, who was head of MEDLARS at the time, was a nurse, and she'd done some education. In addition to the syllabus, we had to determine how we were going to conduct the courses and how many people could be there, where were they going to be held. There was no conference room, really, at the UCLA Biomedical Library.

F: And it must have been a challenge to figure out how to do hands-on.

H: Yes. So we did lectures in the reading room of the rare book library. Vault was right there, and locked cases around. Beautiful, beautiful room. And there was a very long conference table there that was normally used only when VIPs were there or when the medical Resource Library directors of the region would meet. It only fit a certain number of people, so we had to select who could come first. And that was kind of done for us because you have to train the Resource Libraries first. NLM's network, of course, is hierarchical, so that made it fairly easy. It's only whether UC-San Francisco gets in first or USC or UC-San Diego [laughter]. You have to kind of parcel out the positions. But they had to budget to send someone out to live at UCLA—to live in Westwood—so we had to think about hotels. We had to think about what were they going to do in the evening. It was a big thing to get all that put together. But the Rare Book Room worked beautifully. Then we adjourned for search practice to the RML, the twelfth stack level of the library, where we'd set up multiple terminals for them to do the practicums. Then we would get back together and discuss the practicums. The trainers, Jo Anne and Angie and I, would make sure we'd go around to every single person. People have different styles of learning and they learn in different ways, and sometimes they caught on very quickly and other times it was very difficult for them to understand Boolean logic, which is a different form of thinking. And I found when training physicians, it's very difficult for them sometimes to convert from their differential logic to Boolean logic. But once you explained it—how the descriptors are working and so forth—then it worked. Of course, now with the full-text searching and the Googles and so forth, it's a bit different. But that was exhilarating, draining, and of course we wanted it to be successful because we became the West Coast training for the country. Typically, anybody west of the Mississippi would come to UCLA.

F: It's interesting to me, Michael, as we talk about it—it seems to me it's the beginning of a major paradigm shift for the profession, where librarians had to become more mobile and begin to leave their library setting and come to UCLA for training, and the beginning of doing much more outreach.

H: Yes. It's true the resource librarians—the librarians at UC-San Francisco or USC or the other big university libraries—were typically going to go back and be train-the-trainers. So they were not going to typically send their entire staff to UCLA—that was very expensive—but send someone who could go back and do the training. That was a paradigm shift too. I suppose people who go to annual meetings—at least this was the

case at Mayo and UCLA and other places that I've worked—that if you're lucky enough to go to a big annual meeting, then you're sort of obligated to come back and report on that or do some training and follow-up. But the MEDLINE training was a little bit different because they just spent three weeks in intensive training, going through the MeSH categories and then all kinds of practicums. When they left, they could actually do searching. They were competent searchers, at least at certain levels, and if they had difficulty they knew they could always call Jo Anne or me and we could help them out with difficult searches. But they were then responsible for going back and being the resource of their institution. That was different, I think, in some senses. And so, mobility, yes. They were also wanting to go back. They were very excited about this, typically, especially the hospital librarians but also the resource librarians, of going back, because it was something they could offer that they could not only do and they were expert at, but it was a true service to the university or the hospital or whatever institution they were working for. So they were very, very excited about it. And they really did want to learn everything they could about it, which was exciting for the trainers as well [laughter].

F: And it was interesting because, as you say, it changed their role also within the library, because I remember— Oh, my gosh, there was a real glamour for the reference librarians, who now became masters of a new technology and a new way to gather and disseminate information.

H: Right. And, of course, that changed a little bit when there was a need to make sure that end-user searching became the predominant paradigm as opposed to mediated searching. Initially, the NLM, in its hierarchical way of thinking, had trained a cadre of MEDLARS searchers to know everything about the MeSH vocabulary, everything about the MEDLARS processing, so they could do, for the world, expert searching. They very carefully controlled the quality of the training, the follow-up, continuing education as necessary, the continuing communication with their cadre of MEDLARS searchers, and very tightly controlled from the top down. And it worked beautifully for many years.

With MEDLINE they started the same way. With MEDLINE you got training going on only in two locations—only NLM, of course and its trusted agent, which was UCLA, primarily because of Louise Darling and the good work that had gone on years before at UCLA. But it was still hierarchical. In order to gain access to the system, to have a code, to be allowed to search the system, you had to be trained. That was the entrée into the system.

[Laughter] I remember RAND Corporation, it's a think tank in Santa Monica, which has, of course, a library and librarians—I remember one of the librarians fussing about having to come to UCLA to be trained. Well, yes you do, because you won't gain access to the system unless you do do that. Well, she was huffing and hawing and so on and so forth. But she came, and then she could do her own searching on the system. She was used to, of course, searching other systems. But it's very hierarchical at first, and hierarchical in the sense of not only the training but also access. So the resource librarians first, and then all the basic unit libraries and then any corporate library that could benefit, like

RAND Corporation and others, and then finally, but not for the first year or two, physicians who really wanted to be trained and could take the time to actually come to the course. That was the other thing. Corporations didn't want to send someone for three weeks of training. Well, it was required. So that's the other problem that the RAND Corporation was having. "Well, <u>we</u> can do this ourselves and we don't need training." Well, number one, yes, you need training, and, number two, you've got to spend the money to..." Well, it's just Santa Monica; they just have a short drive to UCLA. So very hierarchical.

Then later, NLM realized, well, this is never going to work. We've got to push end-user searching. But, of course, the system was too complex initially.

F: Well, and it was very command driven.

H: Very command driven, and very archaic.

F: A little abstruse to understand.

H: And of course, that was the ELHILL system. Actually, AIM-TWX was a bit easier to use, but it was modified by NLM into ELHILL. By the end of the life cycle of ELHILL, there was one person at NLM who knew anything about the code. And he probably was insured for millions of dollars because they couldn't fix it if it broke. That's why the NCBI [National Center for Biotechnology Information] had to create the new system. ELHILL was almost broken and it could have crashed.

F: And depended on one individual.

H: Depended on one individual—right. Ultimately there was a whole programming staff and they knew the codes and so forth, but once you've come away... I know that System Development Corporation created the original code, but then it was modified into the code that we called ELHILL, and then continued to be modified over the years. Well, those people retire, they go on into different jobs, no one knows the code. They are great programmers but they can't fix it.

So that's how training came to be. The whole impetus of the Hawaii training, which was done in the early '70s, same impetus. It was very clear to Louise and the resource librarians in Hawaii that they can't afford to send someone for three weeks of training. It's expensive airfare, it's expensive to live in Los Angeles. So Louise said, "Well, we've just got to go there to do some training." I went and Angie Durso went and we did the three-week training in Honolulu in the basement of Hawaii Medical Library. They had scrounged around and got enough… We brought a couple of portable terminals from UCLA and maybe even sent some over for the training. So we had quite a few terminals set up in the basement of the Hawaii Medical Library. We were able to both lecture and do the practicums in the same spot. And it is a time when they didn't restrict smoking, and I remember old Peggy Place, who was the librarian of Tripler Army Medical Center,

was a chain smoker. She was just smoking to beat the band, with ashes falling all around her, and a couple of other people smoking as well.

That was very interesting because it was very early on in the MEDLINE training program. Of course, there were no telecommunication systems that were later developed, for certainly the mainland. But ARPANET existed, which was, as you know, the forerunner of the Internet. It turns out that we could offer the training in Hawaii because the University of Hawaii, Manoa campus—main campus on Oahu—was an ARPANET node, so they had the connection for this forerunner of the Internet. So we used our terminals in Hawaii Medical Library to connect by telephone via Hawaii Bell to the node at Manoa campus, and from there it went via satellite to Stanford, which was another ARPANET; from there, at various places, to the National Bureau of Standards in Washington. NLM was not an ARPANET node, but it went to the National Bureau of Standards. Don't ask me why the National Bureau of Standards was an ARPANET but it was. And from National Bureau of Standards, it went by a second telephone line to the computer at NLM.

F: This sounds like a fragile link to me, but was it fairly robust?

H: It was. The duplex is a little long, and occasionally, couple or three times during the training, NLM would forget to open the telephone line between the National Bureau of Standards and NLM. Of course, there was this vast time zone difference between NLM in Bethesda and Honolulu.

But I think there were about fifteen people or something, hospital librarians from all the islands, and of course, all the major institutions in Oahu, the big hospitals, and of course, the university. And it was really quite successful. I guess we were the first to use the Internet—for training, anyways, not for other purposes. Normally, the ARPANET would be used to send massive amounts of research data, but in our case we were actually doing training.

F: You were doing a lot of back-and-forth… Packets.

H: Yes, packets of data.

F: Was John Breinich the director of the Hawaii Medical Library?

H: He was. John Breinich was the director at the time. Hawaii was part of the UCLA RML… The people in Hawaii are always so very gracious, and it was just a great training program. And of course, there was a great deal of envy back at UCLA because Angie and I were the only ones who got to go to Hawaii.

F: For three weeks.

H: For three weeks. We lived at the Queen Kapiolani Hotel, which is facing Kapiolani Park. It was not one of the high-end hotels, but it was good.

F: So you had a lot of amazing involvement in the early days of online searching, but then you also rotated into some other positions while you were at UCLA.

H: MEDLARS ended, so my position as information specialist/MEDLARS search analyst [ended]. Eventually we no longer needed to do MEDLARS searches, and we became the trainers. A position opened up as head of information services at the Regional Medical Library, which was a position that actually was involved in training. And of course, there are copious amounts of statistical data that needs to be compiled and sent to the NLM on a quarterly basis and summarized annually and so forth. The head of information services was responsible for the training program and the statistical reports, the information services outreach—not consulting, but information services outreach—making sure that if we were asked to do demos at the American Medical Association or the American Dental Association, we had people there to do those. I started a regional newsletter for online searchers there that we published quarterly. Of course, in that time, it was just sent out via snail mail. But all kinds of search hints and so forth, of information about [MEDLINE] and the ELHILL system, so searchers that we had trained in the region could do more effective searching. So that was a position.

Then the RML directors and the other big medical library directors realized that medical education was changing and many more audiovisuals were being used for medical education. None of them knew anything about it, and they all felt that they needed to know something about it. At the time a division of NLM was the National Medical Audiovisual Center [NMAC] in Atlanta. So the RML directors arranged with NLM to get funding for an audiovisual training program to occur in Atlanta in the summertime. It was July or August. It was absolutely awful to go to Atlanta in the summertime. But at that training program I met Carol Burns, who was later the director of the library at Emory, and one of the ladies who was the head of our learning resource center at Mayo, Judy Lorig, was in that course. There was a representative from all of the Regional Medical Libraries, and at that time there were many more than there are now—eleven of them—and so everyone had someone there. I went for UCLA. We spent a month learning about audiovisuals there—the different kinds of audiovisuals, their production, how you produce them, how they could be indexed—AVLINE—for the National Library of Medicine—Audiovisuals Online. It was an interesting time. I came back to UCLA and established a consulting program for audiovisuals. If hospital libraries or other Resource Libraries wanted to know more about the use of audiovisuals in medical education, I would go consult with them or consult with them electronically or on the phone. Gail Yokote and I—Gail had joined the RML at some point there—compiled a list of audiovisual resources that we published through the RML. Then at that point I wore two hats. I was the audiovisual consultant for the region and then also the head of information services for the region.

F: Interesting. Across the early part of your career, you were very flexible and gracious as far as your willingness to go places and commit your personal time to be at NLM for three months for special training there, to go to Hawaii and do three weeks of training, to go to Atlanta to get training.

H: Well, when Louise says go, you just do it. I'd like to say that I thought those trips, as disrupting as they can be for a social life and continuity of going to church and things like that, for instance, it was wonderful to happen early in my career. It was really a great learning experience. Wonderful learning. And you get to know people that way. It was super.

Of course, getting to go to Hawaii for three weeks was the cream of... But it's not as if… We worked eight hours a day. You'd think I'd want to go to the beach after eight hours of training. No, I was ready to go back to the hotel and rest a little bit and maybe have dinner with Angie. And she was very tired. She was significantly older than I, so she was quite tired as well. So we worked very, very hard. It was a grand opportunity, I think.

After doing this for a number of years... Those special trips were never a problem. Going to a meeting in San Francisco or Las Vegas to demonstrate—never a particular problem. The problem came, I think, for me, not initially, but I became, as a trainer, valuable to other regions. So the Texas region [South Central Regional Medical Library (TALON)] wanted training. NLM didn't want to want to send anyone, so Louise said, "Well, you've got to spend three weeks in Dallas." Then the [Midcontinental] RML wanted somebody, and so I've got to go to Kansas City for three weeks. Everybody is gracious. They're wonderful. And through the training in Kansas City, I met Karen Butter for the first time. I met many people that way; most of them are retired now. Mark Funk I met for the first time at that training program. I met great people in Dallas as well, who came from Louisiana and so forth. So it was great experience, but it is disruptive to your life to be farmed out for that period of time, and it's not a vacation.

F: It's not. And I think, too, to be training all day long, it's draining for those of us who are introverts.

H: Yes. I was a very good trainer. Of course, as an instructor you're in a different mode than you are as just a member of a group. I had all the training down pat; I could answer almost any question that people asked. So I was very confident as a trainer, and was a very good trainer. But that does become an issue for those of us who are slightly introverted or mostly introverted.

F: It's interesting, though, because my first professional knowledge of you was, "Oh, here's Michael Homan, the trainer extraordinaire, because I think that was your national reputation.

H: I think somewhat deserved but I loved to do it and I was very good at it. The National Library of Medicine recognized that as well. I remember sitting on the bed in Bethesda in a hotel room with... oh, Laura Eisenberg was there and I was there, Joe Leiter from National Library of Medicine was there. We were thinking about how we can promote good searching. I don't know if I said it, but somebody said, "I think we need a continuing education course." And I said, "I think that would be useful, but it probably

needs to be through the Medical Library Association rather than National Library of Medicine." So I induced/coaxed/cajoled Penny Worley, who was a crack MEDLARS and MEDLINE searcher, and a wonderful person, to co-author a course. I've forgotten the MLA number for it, but it was called "Online Search Optimization." It really talked about the tricks of the trade of online searching, particularly with ELHILL. It was quite successful. I know NLM appreciated things like that—and of course, MLA did too, because it was a new course for them—a very high-demand course, at least for a few years. Demand falls off after a while.

Then NLM asked me to teach the MEDLINE course at the ICML [International Congress on Medical Librarianship] in Belgrade, Yugoslavia. I don't know if they had travel restrictions on NLM staff going there to teach it. Who knows what the issue was. But they knew I could do it, so they asked me to do it. My boss at the time, Lorraine Schulte—I was at the Upjohn Company at the time—I said, "Lorraine, let's do this," and so she agreed to do it. Of course, she wasn't trained to do that, but it was a great opportunity for me to interact with her. She had planned to go to that meeting anyway, so it was perfect. I did the Belgrade training; that was in 1980. And in 1985 they asked me again to do the training in Tokyo, at the ICML in Tokyo. Gail Yokote, who I had team-taught with at UCLA, did that particular training in Tokyo. She had already planned to go to that meeting, so that worked out really well. So I know NLM looked at me as one of their best trainers. Certainly they had a great cadre of people at the NLM who were good trainers as well.

But the UCLA training program, I think, was really very highly regarded by anyone who attended it, and certainly by the NLM. It continued to be well funded by NLM. Even after I left the university, it continued to exist.

F: Well, you mentioned Upjohn and it makes a good segue… Resuming our conversation, after eight years in LA, it must have been quite a change to transition to Michigan and work for a for-profit drug company. What attracted you to Upjohn and what were some of the factors that caused you to stay there as long as you did?

H: Well, part of the issue with my deciding to move to a new job—in particular, the Upjohn job in Kalamazoo—was the fact that I was being perceived as being so valuable as a trainer at UCLA and valuable as an RML employee that there would really be little chance for me to move into different areas of the Biomedical Library, and it didn't seem reasonable that I'd have to change jobs in the LA area just to do something else. There should be an opportunity within the university that I enjoyed working in. But my perception was that I was too valuable an employee in my niche that that was just not going to happen.

And there were many valuable, wonderful employees at UCLA that had been there much longer than I, of course. The university rules and regulations at that time required faculty and directors like Louise to retire at age sixty-five. Of course, she didn't want to retire at that fairly young age for her, but she had to. So there was a transition that was going to be going on at UCLA, at the Biomedical Library in particular. I had also determined that,

because I was somewhat junior on the staff, that other people had been there a lot longer, even that musical chairs that happens when a major director leaves was not really going to probably impact me. They would probably want me to stay where I was for stability purposes and NLM funding purposes and so forth.

F: And the Biomedical Library staff was all so talented. They were very skilled individuals.

H: Extraordinary, yes. We had people like Alison Bunting, who eventually became the Biomedical librarian, and Phyllis Mirsky and so forth, and Lois Ann Colaianni… who'd moved on to Cedars[-Sinai] at the time. It was an extraordinary place to work. So that was part of this perception of mine—I think a reasonably accurate perception; not that the individuals would necessarily have been able to verbalize that, but I'm pretty sure that was the perception.

The other thing about working at a UC campus—not just UCLA, but San Francisco or Irvine or San Diego—one of those campuses—is that they are typically located in very wealthy parts of the metropolitan area. UCLA is located in Westwood, which is surrounded by Brentwood, Beverly Hills, Bel Air, Holmby Hills, all these very, very upscale, very, very wealthy areas. The salary of a librarian really didn't allow me to even consider advancing financially by being able to afford property. I could have afforded property but it would have been an hour commute or more each way. So that was kind of gnawing at me as well—that I wasn't progressing financially. I was progressing in the profession and loving what I was doing, and loving, actually, working at UCLA, but there was a financial issue as well.

That's the background about going to Upjohn. Well, as it turns out, the lady that I had enjoyed working with so much and kept up with at the Brain Information Service when I first came to UCLA had gone on to work for Nelson Gilman as associate director at Norris Medical Library, which is the University of Southern California—a crosstown rival of UCLA. She had gone on and had been recruited to be the director of the Corporate Technical Library, which was the research library, of the Upjohn Company in Kalamazoo. Upjohn was a multinational pharmaceutical company, very well funded, and it thought of its library very highly. And they had an opening. Lorraine had created an opening for head of information services, which was all the expert literature searching, the reference function of the library. That was pretty much it, initially—circulation and the user services part of this large corporate research library.

I decided, well, I might as well apply just to see what it's like. So I did, and ended up getting the job. I remember my mother saying, when I said to her, "Well, I'm interviewing for a job in Kalamazoo, Michigan," and she said, "Oh, I thought that was a fictional town," because she was from World War II. She's the "Greatest Generation" person. "A, B, C, D, E, F, G, H, I got a gal in Kalamazoo" was a very famous tune at the time. She always thought Timbuktu and Kalamazoo were fictional areas. "No, Mom, it's a real town." Of course, my father knew immediately where it was because he's in pharmacy. The detail men that he dealt with from Upjohn he actually liked better than

most any, because they were very well-versed in the science and not as pushy as some of the other people that call upon the retail pharmacies.

I went to Upjohn to work with Lorraine Schulte. And it was an absolutely wonderful experience. It was so totally different than my job at UCLA. Now, UCLA, of course, is a big research university. But my job at UCLA was a very specialized job. From the time I was there until the time I left, it was searching, it was MEDLARS, it was training, it was outreach and so forth—which was all good preparation for the job at Upjohn. But Upjohn library existed to serve the PhD researchers and patent attorneys and the MD marketing people. It was very, very specialized in that respect.

F: At UCLA you'd been dealing a lot with the clinical literature.

H: At UCLA I was so specialized that I was just doing training. Well, I did work at the reference desk. All the members of the professional library staff—librarians—had to spend time at the reference desk. I was used to dealing with student issues when they need assistance or quick training on MEDLINE if they come in for that. I was used to dealing with clinical faculty as well as research faculty. But that was somewhat a minor part of my job at UCLA. The major part was in the Regional Medical Library in the training and so forth. So moving to Upjohn was a real jolt, very different, where you're responsible for a real library. At UCLA I was responsible for a very specialized part of the library, but at Upjohn I became responsible for the major part of the library.

F: Operationally.

H: Operationally. It was like being an associate director, deputy director—called head of information services. I reveled in it because it was so different, and it was a real library with real patrons that were very demanding. I shouldn't say 'demanding' in a negative sense, though. They were PhDs, they were attorneys, they were MDs. There were no students there to speak of. You had these large laboratories that were developing drugs, and so you'd have—in a university we'd call it a principal investigator. They'd be in charge of the laboratory and they might have PhDs and master's degree people working for them in the lab. It was very research-intensive, which was just a revelation to me as well, because I'd never worked, necessarily, in that kind of environment. And then very, very product driven. Everyone understood that it was the scientists and patent attorneys and everyone that was working towards being able to market an efficacious drug. The niche of the library was a perfect fit for that, both in the print world and later in the online indexing world. Now, once the full text started, the need for a physical library began to dissipate at the big pharmaceutical companies—not the need for mediated searching and expert assistance, but certainly the need for a physical facility because of all the electronic resources. But at the time it was very much a print world, and I learned so much about the different tools.

In a pharmaceutical company at the time it was driven by organic chemistry. I had certainly taken a course in organic chemistry in college, but I didn't know too much about it. There were very specialized tools—the *Chemical Abstracts Service*, for

instance, and the ring structure of the organic compounds—a completely new set of tools that I had no idea existed, which were called RINGDOC, from ring documentations. In Europe, there's a very, very specialized and very expensive set of online tools and patent resources, all very fascinating. The library at Upjohn got the RINGDOC tapes and spun them in-house to issue selective dissemination of information. I worked directly with the librarians who did that. And the librarians would work directly with patent attorneys and PhDs and organic chemistry for the searches that were required.

Then we did some searches, of course, in the clinical medical area, because once a drug is in clinical trials, there are issues that come up related to humans. Of course, there may be drug testing before it gets to that stage in animals. So it was learning the whole drug development process—the NDA (New Drug [Application]) and the documentation that had to go to the Food and Drug Administration.

A very team-oriented type of thing. There was rivalry between different drug development departments—not with the library, certainly, because we were helping everyone, but rivalry because of internal funding. So if you weren't developing what you should be developing, you didn't get as much funding. That could be an issue—not, again, for the library. But it certainly was an issue when we developed the embedded librarian program, because we had to identify which drug development teams were more likely to succeed than others. You don't want to assign an expensive, embedded librarian and then have the team that's not really doing as well as it should be. So that was very interesting.

Over time, I assumed responsibility for the product literature system, which is called Product Information Retrieval System/Upjohn—PIRSU. And I assumed responsibility for Central Technical Documents, which was the online system of the indexing of the technical reports that flowed from the laboratory notebooks. As they discovered new compounds, they would register them in an online index called the U-number index for Upjohn compounds. And of course, the laboratory notebooks would be summarized into technical reports. Technical reports were abstracted, then, by the library staff and appeared in a system. There were a number of people who reported to me for the Central Technical Documents. Absolutely critical operation for the organization because those were the documents that ultimately were assembled into the documentation to go to the Food and Drug Administration. The library was directly involved with that.

The Product Information System was also very important to the institution because all pharmaceutical companies need to report on the adverse reactions of any of their products. PIRSU was set up so that we could more automatically get alerts to make sure that the company knew what was going on with the products, because as products are marketed, physicians start prescribing them, and then you get a whole series of clinical reports, usually. Mostly it's positive because they've gone through the trouble of all these trials and then the Food and Drug Administration has said, yes, this is safe and efficacious. So most of the reports are good. But there are times when strange things appear with certain groups of people, where the drug will have reactions that no one

expected. Those, of course, have to be studied within the company, but also have to go directly to the Food and Drug Administration as a report.

So I became responsible for the product literature system, much of which was outsourced to the Medical Documentation Service in Philadelphia, which was headquartered in the basement of the College of Physicians of Philadelphia, which at that time had a very large and active library.

Then we had a technical intelligence service that reported to the library. We had a PhD in organic chemistry and her assistant, who had a master's in organic chemistry. They were responsible for assembling, at that time, a card file of intelligence on the company's major competitors. So we'd need to know what stage of development certain product lines or certain individual chemical entities were in from Lilly or SmithKline or whatever—Boots in England. That scientist was responsible for monitoring all the trip reports coming back into the company from the PhD scientists, who would go to various conferences around the world to present papers, but also to make sure they understood what was going on with their competitors. All of that would come back and be compiled. And when internal funding came about, the vice president for research of the company would ask for reports. He would need to know—you know, we're developing this product for disease A. How far along is Lilly? Are they ready to go to the FDA? And if they're ready to go to the FDA and it's likely that they're going to be approved, and our product is very similar but we're a year away, maybe we ought to stop that particular product. So that was technical intelligence.

F: The library was really critically positioned in terms of understanding what was going on competitively and also interfacing with the FDA.

H: Thanks to Lorraine, but also, all the other people that worked in the library really tried to keep up on everything that was going on. It was very exciting to work in a company like that.

The other thing that was terribly exciting for me was the fact that I've always been interested in information retrieval and automated information retrieval. The library received funding... I talked to the head of research computing facility and I said, "What I'd really like to see is that instead of us using this thermal paper and so forth to print out these sheets for these scientists—what I'd really like to see is our information specialist staff, I think there were seven full-time information specialist research librarians—and what I'd really like to have them do is to be able to download the data from these systems, like MEDLINE, and then to be able to write their letter that explains what they did to the scientists and have it as one package." And he said, "Oh, I think we can do that. We have a series of word processing terminals that the unit that was using them is not going to be using. They're relatively new and they have a telecommunications component to them, and they can be networked." So we moved the mainframe computer for this system into the computer room of the library, and all of the information specialists, then, had a terminal that they were able to download searches, eliminate things that they didn't want, and produce a really nice, clean copy. They liked it because

it was using technology in a very reasonable way, and they felt that they were doing a very professional job, which they were. Before they'd just write a handwritten note on this thermal paper, and to me that's just not very professional. So we were able to do that.

Then we worked with BRS [Bibliographic Retrieval Services] and its Ovid—that's the successor, Ovid MEDLINE; I don't like it… Anyway, we worked with BRS and we convinced BRS that we ought to be able to locate a very high-speed computer printer in our computer room and that we ought to be able to output the print from BRS searches, especially large ones that might be hundreds of citations, maybe with abstracts, and have those pushed out on the very high-speed printer that would save an enormous amount of time for the information specialists. They agreed. They said, "That's fine. You can do it." So we got all that calibrated and that was fine.

Lucky for us, June Slach was an NLM associate. This must have been in the 1980s. Anyway, she chose to work in the pharmaceutical industry rather than going into academia or staying at the National Library of Medicine. And she was a programmer. She had her degree in computer science. She needed to do a number of things for the library, but the thing I wanted her to do was, in a pharmaceutical company, with these intensive research searches, there are multiple files that need to be searched for almost any search. So you'd have to search MEDLINE, you'd have to search RINGDOC, maybe *Chemical Abstracts*, *Biological Abstracts*. Could be four or five files, and of course there's overlap, so there are going to be duplicates. It was very labor-intensive to eliminate the duplicates, to do it manually. You could, because they had the word processing system, so they could go through and click them out. Labor-intensive.

F: Very labor-intensive.

H: June, bless her heart, was able to create a dedupe [identification and elimination of duplicates] system for the Upjohn library—and she published it as well [editor's note: see *Bulletin of the Medical Library Association* 1985 Jul(3);73:235-7]. They didn't need to do this for every single search, but typically, important searches are multifile searches. The data would be downloaded and then uploaded to the research computing facility, where she had the software that deduped. The searchers were able—I wasn't a searcher at that time—to tell the software that she had created that they preferred to keep the MEDLINE citation, or they preferred to keep the RINGDOC citation.

F: Depending on which database was most relevant to the search.

H: Exactly, and then to eliminate the others—the duplicates. Very sophisticated. All of that could happen in the background and then it could be downloaded as a very clean search to the word processing system and output to the researchers. I think they were able to send it electronically by then, too—internal, not through the Internet. But we had the internal communication system.

F: So you were doing very sophisticated in-house deduping long before that became a standard practice in the online searching.

H: Yes, long before. It had been a problem for years and years and years, particularly in the intensive research environment; not so much a problem in the clinical environment. MEDLINE usually suffices in a clinical environment, or, in some cases, Embase and MEDLINE. It was not much later that systems like Ovid developed their deduping system. But that was available to the Corporate Technical Library much, much earlier—and again, in a very specialized environment, in a heavy, heavy pharmaceutical research environment. But really quite sophisticated for the time.

F: And again, just to underline the value of what the library could do for information management for the corporation.

H: Yes. And it was saving time for the librarians, because they didn't have to manually dedupe, saving an enormous amount of time for the researchers—and not missing anything. That's important in the research environment. It's recall [retrieval of relevant citations].

You have to be sure that you have seen everything. Particularly if you're working in developing new products and you are an organic chemist and your job is to find new chemical entities, well, you don't want to miss anything, because the next step is registering it... well, maybe even private registering of it in *Chemical Abstracts* so it has a number... and then getting the patent attorneys involved so you know you're protecting that unique compound or that class of compounds so that it ultimately can be potentially valuable. You don't know at that time in the pharmaceutical research project whether the drug is going to have good physiological benefits, but if you're working cardiovascular diseases, you're already familiar with the statins and the class of the compounds in that area. So you're looking for unique compounds that can be patented by the institution that will have very positive effects, hopefully better than anything that's currently marketed.

For instance, Upjohn had discovered a drug called minoxidil, which is Rogaine. Well, it was originally developed as a cardiovascular medication, and it was an efficacious cardiovascular medication. But when women took it, it grew hair in unwanted places. That was an untoward side effect of this particular compound. So Upjohn said, "Oh, well, there's a market for something that will grow hair. I wonder if it can grow hair if it's used topically." You don't want it to be used, necessarily, systemically all the time. And indeed, at least for some, it works. So things can happen by happenstance rather than going out and discovering something because you hope it works in a cardiovascular sense, and in this case it was a dermatological drug, eventually.

It was a fascinating time to be there because the pharmaceutical companies at the time—the so-called ethical pharmaceutical companies—not the over-the-counter companies that were developing consumer products, but the companies that were developing prescription medications—were highly competitive with each other—I think highly ethical—trying to find medications that were indeed efficacious. Issues were how long it took to get things

through the FDA. The FDA was underfunded. You had to send truckloads of documents down to the FDA. They'd go into a warehouse and who knows when they get around to reading those. So that was the kind of processing part of it.

The other thing I learned, apart from the drug development process, which, of course, I had to become highly familiar with, because you need to... If you're talking to a PhD organic chemist, you need to understand immediately, oh, he's in the development phase. He's searching for new compounds. On the other hand, a physician might call that's on the drug development team. Well, she might be in clinical trials and they're having some issue with an adverse drug reaction in an Upjohn drug that's in clinical trials. That's a way different question than a PhD organic chemist. You really did need to know on what continuum that was.

The product literature system was a lot of fun because I managed the contract with Medical Documentation Service in Philadelphia, which was sold to ISI [Institute for Scientific Information]. June Fulton ended up managing it, but initially it was managed by Alberta Burton at Medical Documentation Service in Philadelphia. I would go down once a year to look over the contract, meet with the PhDs that were scanning the literature. They hand-scanned the clinical literature at the College of Physicians and then prepared a computer tape using the vocabulary and thesaurus that Upjohn had created of all the indexing, and then that was used as an online system internally at Upjohn. Eventually it was sent to BRS and created as a private file. So our searchers could search—or the Upjohn employees worldwide could search—the product literature, along with MEDLINE or Embase or any of the other systems that BRS marketed at the time. So that was a fun assignment. But it was great working at Upjohn.

F: I want to go back, Michael, a little bit to something you mentioned earlier. You talked about the embedded librarians that you established there. Something that we would call an 'informationist' at this point in time. But again, that was way before anyone else was likely to assign librarians outside of the library.

H: Yes. The academic medical libraries and the hospital libraries typically were libraries that may have been providing mediated searching [as part of a clinical librarian service]; certainly the hospital libraries. Often, the academic medical libraries, for one reason or another, gave up mediated searching. Either they had to pay too much or the departments they were trying to serve wouldn't pay. But they lost the talent to do mediated searching. Of course, the hospital libraries never did. They continued to provide that. But typically, embedded librarians were not a part of the academic medical environment at all. In addition to that, after end-user searching became the norm, many of the academic medical libraries no longer did searching, even. But Upjohn, of course—the library— revolved around the specialized services that were offered to the researchers. So the embedded librarian notion certainly wasn't new to Upjohn.

You can think of the drug intelligence service—the technical intelligence service that I described. It's really a very specialized, embedded process for technical intelligence about other companies. It's not much of a leap to think about how you might speed up

the work of a drug development team, or how you might more quickly solve the problems of a marketing team, with someone that's highly trained to solve problems through information. The concept was that pharmaceutical libraries, in particular, and other specialized libraries had used librarians quite a bit. Sometimes they had used it in a marketing sense, sometimes it was in a research sense. In our case, because the Corporate Technical Library was embedded in the research division—this multi-billion-dollar research division—we thought our role was really to empower, if you will, the drug development process. And how were we going to do that?

Well, we were currently doing that through all the stuff that we were doing—the product literature system, the corporate technical documents and the abstracting, and the ad hoc literature searches that were being done, hundreds monthly, for all the scientists. But was there another way that we could add value from the library? And so the notion of selecting drug development teams... But the problem, then, is, what divisions? Is it cardiovascular disease? Is it dermatology? Whatever it might be. And then there might be several drug development teams within cardiovascular diseases, so which one do you choose? How much time are you going to attempt to allot? It's a small staff—seven full-time information specialists, some of whom have a PhD in certain areas; other just have oodles of experience. Some would be very willing to be on a drug development team. Others would be quite apprehensive. They're fine sitting in the Corporate Technical Library and doing their literature searches and they have a routine and they talk to people on the phone. But they don't work as a member of a drug development team, which might have PhDs of one ilk or another, or a nurse or whatever, depending on how far along the drug development is.

So it was fraught with some issues. The main issue was, we wanted it to be successful. And it actually came about through one or more physicians—interestingly enough, it wasn't PhDs—it was physicians who were working on drug development teams that would come to the library for ad hoc searches to solve a particular problem. The feedback coming from them, that ultimately got to the director, was, "You know, it would be much more efficient if you just had someone there when we're discussing this problem, and we don't have to regurgitate it. We come to the library, and of course you do a wonderful service for us, and we eventually solve the problem. But we think it could be much faster if you were actually there"—sort of like an embedded librarian that might go on rounds at a hospital and you encounter clinical issues right there. Well, this is the drug development process. So there is typically a combination of research and clinical issues.

The notion was, can we really do something to help out? We actually then set up teams. I got a few librarians to do that. We could offer the team. And we said, "We can create a database for you. If you are in the early stages of assembling all of the data you need for the FDA or whatever reports you're doing, if you don't already have a database, we can create one for you. But the main reason that we're there is just to answer questions that might be impeding your progress, which could be clinical questions or research questions; it could be, I suppose, a business or marketing question, but more likely a research or clinical question." That was the impetus behind that.

It was established, but not long after that, I went to UC-Irvine. But it was an exciting time to be there. I was there at Upjohn eight years. Very exciting time. Wonderful relationships with the research computing facility. Just very, very talented people. And I try to keep up with some of them as well.   It was a great, great opportunity.

[WAV file #2]

F: This is an interview with Michael Homan for the MLA Oral History Project, continuing after lunch on December 18, 2015. Before lunch, Michael, we were talking about your years at the Upjohn corporation. But after nine years there you were called back to California and to the Irvine campus, specifically. What was it that drew you back there?

H: Well, my library director at Upjohn, Lorraine Schulte, was really not much older than me, and I perceived she'd probably elect to stay at Upjohn until she retired, which probably wouldn't be for many years. While I liked what I was doing there, I really had in my mind that ultimately I'd like to be a director. It wasn't going to happen at Upjohn—pretty sure about that. So I needed to make a move.

I decided that the move would be better back into the academic medicine world rather than continuing with the pharmaceutical research environment. The academic medical area seemed a bit more stable. At the time I was thinking of moving, the first of the mergers and acquisitions of the big pharmaceutical companies was occurring, and it just seemed to me that the stability that had been the case with the pharmaceutical companies up to that point would probably not continue. I wasn't prescient or anything like that, but I just had this gnawing sense of anxiety that the academic medical world would be a little bit better—more stable—for me to think about moving.

And I had always enjoyed Southern California. I enjoyed my job at UCLA very much and continued to have good friends and colleagues there, including frequently going to the joint meeting of the medical library groups [the Medical Library Group of Southern California and Arizona and the Northern California and Nevada Medical Library Group], which was either held in Southern California or Northern California or occasionally in Arizona. In a sense, moving back to California would be renewing my good colleagues and friends in Southern California. And my parents had had a winter home in Palm Springs for about eight years, and it was a nice Christmas break during the really cold weather in Michigan to be able to go to the desert of Southern California and get out of the really snowy weather. So weather had a part of the appeal to me. But mostly it was moving back into the academic medical environment.

I'm not sure it had to be in Southern California. It just happened that there was a job that came open at the University of California, Irvine for an assistant university librarian [AUL] for the sciences. The major part of the job was shepherding through a very large building project for a consolidated science library in the Irvine campus. The job seemed terribly interesting to me, and that's why I ended up applying for the UC position.

The other part, too, was that I was still a member of the University of California retirement system and I could continue building my retirement if I went back to the University of California. If I went to another university, it would be a different kind of retirement system. It made some sense financially to move back to University of California.

F: Good. And when you went to UC-Irvine, I know it was the building project that really drew your attention, but you also had a pretty broad portfolio that embraced responsibilities outside the health sciences field. You had personnel; you had some of the humanities and social sciences. How did you feel and what was most interesting about those broad duties?

H: Those duties came to me sort of by happenstance. When I arrived at the University of California at Irvine [in 1988], I was hired by Calvin Boyer, who was the university librarian at the time, to be the AUL for the sciences, which was serving broadly in the sciences—liaison with the faculty making sure that the sciences were well served by the university library, but also, responsibility for four branch libraries, which served medicine in two places—one on the university campus in Irvine and one in the city of Orange, which was the clinical center, the hospital for the university—and a small biological sciences library and then the physical sciences library.

That was the job when I was hired. Things started to happen fairly quickly. The senior administrators appeared to me not to be cohesive as a team. There were rivals. As the new kid on the block, it was a little difficult for me to really become assimilated by the team—it was a sort of a non-team. And I was viewed with suspicion because I was the new kid on the block. I actually liked the university librarian, Calvin, very much. As we would walk to lunch—the group of senior administrators —I would sort of hang back and talk to him because he was a little inscrutable and difficult to talk to, but we got along quite well. But over the first few months that I was there, I was noticing that whenever I would attempt to talk to Calvin one-on-one, the other administrators really wanted to know what we were talking about, and I'm thinking, well, this is not a very workable situation. Something's going on that I don't understand—because I was new enough that I didn't really understand.

Well, one thing led to another and there were a number of evaluations of the university librarian. It ended up with his demotion to librarian status rather than executive status, and an interim university librarian was appointed. The AUL for human resources, or the AUL for personnel, decided, after one of these investigations of the university library, that she needed to leave. The AUL for humanities and social sciences likewise ultimately felt uncomfortable and decided to leave. All of a sudden everyone is bailing. The university library was sort of imploding after these series of investigations. And I was the one with the most management experience, and even though I was the newest administrator, I had more experience than the others there. All of a sudden, accruing to me was the personnel office of the university library, which included the academic reviews of the librarians and the liaisons with the human resources of the university, and

the AUL for humanities and social sciences, which was the university library, all the public services in that.

So I took on two additional, fairly large jobs in addition to the AUL for the sciences. The AUL for the sciences did include the management of the smaller libraries, but the most important part of the job that I perceived, and I'm sure was perceived by the university, was making sure that that new science library was built and that it was built well, and that we needed to move forward with that. So that was my main thing.

But the other hats really did take an enormous amount of time, and ultimately, I worked with an interim university librarian, who was from the computer science department at UC-Irvine, and initially he had decided that as faculty member he could devote one day a week to the university library. I knew that wouldn't work. Ultimately he was convinced that he needed to spend a little bit more time and that certain things needed to be done, and healed and so forth—that I needed his assistance from time to time and I couldn't really have his assistance if he was only showing up one day a week and then the rest of the time he was really being a faculty member.

Eventually the university mounted a search for a new university librarian, a long search that ended up finally in the appointment of a permanent university librarian. All of those hats, certainly great experience, but I was enormously busy all of that time. I loved work and loved to be busy, but the stress was pretty much taking its toll. Luckily, the new university librarian moved very swiftly to hire an AUL for personnel, which helped a great deal, and then ultimately an AUL for collections. AUL collections was open but it was being handled by a team. Most of the collections, of course, were handled by the librarians of the university anyway, so it wasn't really that you needed an AUL for collections immediately.

So the main job was the university library, which was the humanities and social sciences library, with some sciences. It really required day-to-day management and administration—that was me—in addition to me being the AUL for the sciences. While it was really good experience, it really took its toll in terms of stress on me. So eventually I decided that once the building was built it was time to look elsewhere.

F: Where there was a more reasonable workload.

H: Yes. Well, to her credit, the university librarian recognized that I really did need to be relieved of some of these responsibilities, but she couldn't do it immediately, clearly. Plus, new university librarians really don't know what they're doing initially. They need to have time to assimilate the culture of the university and understand their bosses, the vice chancellor and chancellor and so forth. That's understood.

F: But meanwhile, you were the library administration in one person.

H: One person, right. It was a very challenging time in terms of administration of the university library. And I think that the thing that took the most time, at least for part of

the year, was the academic advancement process of the librarians and all the paperwork that required. I had to issue the call for the performance reviews and manage all of the paperwork, with assistance, of course, that that entailed—deal with irascible supervisors, or librarians who would write about their supervisor, and then somebody would write about the librarian, the librarian would respond, and then there would be a response to the response, and it was just like, when will this stop. So all of that had to be managed. And of course you're dealing with librarians who would get all upset about one thing or another. That took a lot of time. But the other process was that you were just dealing with all the personnel issues of the entire university library. So if the driver of the van is drunk, you have to work with the union to rectify that kind of thing. It was marvelous training, but I did learn that I didn't ever want to be the AUL for human resources at a university library.

F: Anywhere.

H: Anywhere. I had the experience but I wasn't about to go apply for a job in that regard [laughter].

The most exhilarating part of the job, of course, was the science library, and it entailed a huge amount of work and planning. Very exciting in terms of working with the architects. The architect of record was a famous architect from England and his assistant, and they would come periodically to the campus and we would work with them on the architecture and functionality of the building. The state required that there be a California architect that was working in parallel, so I needed to work with the university architectural office, which had a staff of architects. I needed to work with James Stirling, who was the famous architect from England, and his associate. And then I had to work with an architectural firm in Newport Beach, who was executing the working drawings of the science library. So it was trying to get everything together to make sure that we were actually on track and that we would be able to spend the money that the University of California had earmarked for that building.

Several controversies occurred at the highest levels of the university. One was that once the plans for the science library needed to be ultimately—after all the years of planning and some initial working drawings were prepared—that all had to be approved by the architectural office in the Office of the President of the University of California in Oakland. The packet was sent up to Oakland, and we got word that there were problems with the architectural drawings and the conception of the building. It required the chancellor to fly to Oakland to chat with the Office of the President to get things back on track. Not something that I could do in the university library, but something the chancellor had to do. He was successful. So off we went and continued planning. You know, these projects take multiple years to plan, so six years was not unusual for a building to be planned, executed, built, and occupied.

The other controversy that occurred was that James Stirling, the architect from England, had sited the new science library—which was actually a bit larger building, a more imposing building than the main library building, which of course always causes

problems with the humanities and social sciences. A very imposing building. He had sited it directly on the spoke mall of the biological sciences, essentially filling up an area that was titularly owned by the dean of the biological sciences.

The building was sited there so that if somebody was walking from the central campus—which had a circular park, and with these spokes with various buildings around the spoke—if someone was walking toward the science library but they wanted to go to the medical school, they could literally walk through the building without entering it to the medical school campus, which was a good plan, except that... [interruption]

F: So we were talking about the siting for the science library... the territorial…

H: There were two major controversies. There were lots of controversies, but two major controversies. One was the approval by the Office of the President, which we just talked about, and the other was the siting of the science library. Very large building. I think it was six floors that spread out, and part of the spreading out had to do with the desire of the architect to have an entry plaza and the ability of people, through fairly wide entries, to literally be able to walk through the building. So it was built around a central courtyard, massive windows for the periodical reading room, and so forth. The siting, everyone thought, was really a fantastic idea, that it would certainly be a signature building by a very famous architect, and probably his largest commission in the United States up to that time. People were excited. The problem that occurred was that the architectural office of the university forgot to tell the dean of the biological sciences, who considered it his property. And in point of fact, it was his property. He really pitched a hissy fit, and rightly so. All kinds of stuff had to be done and meetings held so he could come up to speed on why it was located there, and what the architects of the university had done to ameliorate that in terms of the build-out of his school, which included additional buildings along that spoke mall, which could still be built—but that the entry of the spoke mall was now out of bounds because the science library would be there. Eventually the chancellor, of course, had to intervene—once again—on the side of the library and of the architects. So things were smoothed over and the building could continue on with that.

Those were overall arching concerns. The University of California at the time—probably still to this day—never gives quite enough money to do things that make a building really special, like additional stonework and so forth. There was a need to raise additional money, which I was involved with all along, meeting with the chancellor and wealthy donors or potential wealthy donors, and then when the new university librarian came, doing the same thing with her, and then meeting with the dean of the medical school to make sure that he understood what was going on.

There were three or four deans of the medical school during my six years there. They didn't seem to last long, and they'd get themselves into a bit of trouble almost always with the faculty related to the percentage that the physicians were able to keep when seeing private patients. Somehow or another the dean would get on the wrong side of the faculty and all of a sudden we'd have a new dean. That was my responsibility—to keep

the various deans involved. By and large, other than the dean of the biological sciences, who ultimately became a friend of the library, we didn't have any particular problem with the medical school.

The issue with the medical school was, are they going to be able to use a portion of the library, which had been set aside as kind of a resource learning center, and specifically because of the way medicine is taught. The issue there was that the university library— not the medical part of the university library—didn't necessarily agree with that. As it turned out, the old medical school building was turned into a learning resource facility or lab, and because the university library wasn't terribly cooperative with the medical school, even though it was a science library, it wasn't necessarily perceived as a medical library.

The big issue in terms of the librarians and the library staff—apart from helping with the architecture and the functionality of the building, which required their really good input—was how to actually run a 150,000-square-foot building on six floors with multiple service points when you only had had three small branch libraries with limited staff. It was difficult to convince the humanities and social sciences part of the university library that additional staff would actually be needed, that you could not staff a very large building larger than the university library, with multiple service points, with the existing staff.

F: So you were given the staff of three small facilities moving into a much bigger collective facility.

H: That's correct.

F: And no new lines.

H: And initially no new lines. So the responsibility of the AUL for the sciences was to convince the university library administration that additional lines were needed. Additional lines could be had at any time but it meant conversion of collection money into personnel. University of California is driven by formula, and so much of the formula for university library personnel comes from the size of the university, the number of faculty and the number of students. You get a little additional money because it's a medical school, but most of the time that money is not used to hire staff; it's used to pay other things, including collections. While the money was there, it was being used in other ways. It was my responsibility to make sure that everyone was on track, first, to understand that you can't run a very large building with the existing staff; and secondly, to figure out what the optimum staffing would be; and then to make it happen. So write all the job descriptions—and luckily I was the acting AUL for personnel so I could do that [laughter]. So that was a very interesting time to be at UC-Irvine.

F: So given all the responsibilities that you had that really pulled you over into the more general academic side of things, were you tempted to stay in general academic library administration, or were you really pulled to the health sciences?

H: Well, of course, my whole career had been in the health sciences, initially. But remember—at UCLA I had a very specialized job of training and MEDLARS and so forth, so it really wasn't a traditional reference librarian or even associate director job at UCLA. When I went to Upjohn, it was very intensive pharmaceutical research, organic chemistry, and very focused.

I enjoyed working with the scientists and the physicians, and, by and large, I didn't really enjoy working with the humanities and social sciences, music, people. I wasn't knowledgeable about their literature. I felt uncomfortable—not that they weren't good people, but I felt that they knew that I was representing the sciences. And it seemed to me that, at Irvine, at least—I don't know about other UC campuses—they had a chip on their shoulder about the sciences, and medicine in particular. At all big campuses, the faculty understands that the physicians make more money. They are on a different salary schedule than regular faculty. And, the clinical physicians see private patients and so they make a lot more money. There's a great deal of envy, I think, and "sackcloth and ashes" about why is this so. Well, it's so because society makes it so. It's not the AUL for the sciences' fault if this is true. But anyway, I found that working with the humanities, social sciences, and all those undergraduate students was not to my liking. Working with the librarians in the humanities—they were very good people. But I was so used to working with people who knew medicine and science that, again, I was a little uncomfortable with that area. I knew enough about administration and management that I was doing fine. But I wasn't enjoying, necessarily, that part.

The thought of continuing to do—essentially I was the deputy director of the library, and, for a while, I was running the library as the acting university librarian. But I didn't enjoy the non-science part, and part of that was because I wasn't very experienced at it. And I didn't like all the internecine fights that were occurring with that part of the faculty, as well as the librarians. It seemed to me that the lack of knowledge on the part of the humanities and social sciences about medical education and the residencies and all that was so strikingly absent that no amount of training was going to make any difference about how they viewed medicine or the sciences in general. The sciences—like chemistry, physics, biology—that had the PhD programs, they sort of understood that a little bit more. The MD and residencies, there was no understanding of that at all, and I kind of stopped trying to explain what medical education was all about and what was a resident. They didn't know what a resident was. Anyway, I think it was uncomfortable because I was inexperienced in terms of the actual knowledge of the whole disciplines. I loved music but I knew nothing about music faculty and so forth, so it was not something I ever considered.

F: And then the job at the Mayo Clinic opened up. What attracted you back to that and the Midwest?

H: Well, it was nearing the end of my time. Maybe a year before the science library was going to be complete—the building was up but not complete inside—the new university librarian came. Normally I like people and I really give them the benefit of the doubt. Of

course, I gave the new university librarian the benefit of the doubt. But it turned out that I just really didn't like her personally, which is unusual for me because I normally like most individuals. And then, based on a few things that happened, I started not trusting her professionally, either. Of course, she had no experience in medicine. One time I needed to have her meet the dean of the medical school, and so we went over to his office, this enormous office in the medical school complex. And it was like a deer in the headlights—oh, my goodness. I was trying to explain. I was comfortable; it was just the dean of the medical school, and probably the fourth one that I'd met based on the turnover over there, so no big thing. Then one time we had to appear before the union and we were attempting to fire somebody. The union initially was trying to prevent that, of course. We were presenting the case. And again, the university librarian has no experience in that area, and it was like deer in the headlights again, and I'm thinking, "Oh, my." When she said, "I'd just like to pour all your knowledge in your head into mine," I thought, "Oh, no, this is not good."

F: I don't want to have to train my boss.

H: I know. This is not good. I think she was flummoxed by the size of the issues. It was a new science library. There were issues that were still emanating from the demotion, and by that time the old former university librarian had left. The faculty are still very concerned about this. She's having to deal with a lot of things that I wouldn't have known about. Even giving her the benefit of the doubt, it was a difficult relationship, and I thought, I promised to come and build the science library, which I did, and I think it's in the better part of valor to look elsewhere.

There were no jobs at that time at my level, the AUL level or the university librarian level, at University of California. The only job that I think was coming available was Caltech, which probably wouldn't have been too bad. But Mayo was advertising for a director and the University of Illinois at Chicago was advertising for a director. So because the science library was nearing completion, I decided it was time to move on, to look and to see what's out there, and so I applied for both of those positions and then ended up going to Mayo [in 1994].

F: And when you arrived at Mayo, Tom Fleming had been director for quite a long period of time.

H: Well, actually, my predecessors at Mayo had been Jack Key, who had been at Mayo—and still was there; he was there all the time they were recruiting for the position—and then, of course stepped down and retired. At the time at Mayo, you could go on what was called 'senior status' for certain people. Not everyone could go on that, but the faculty, physicians, directors—like a library director—could go on senior status and have your full salary paid for up to two years with the approval of the department, which meant that I had to approve that when I arrived. So he was my immediate predecessor. He had been there for about twenty-five years [1970-1994]. His predecessor was Thomas Keys. That's where the 'Tom' comes in, but not Tom Fleming; Tom Keys. Tom Keys, who had been president of MLA [1957/58] and a Marcia Noyes

awardee, very active in MLA, had been in the clinic beginning in the 1930s. He served until about 1970, when my predecessor, Jack Key, was appointed. So even at Mayo, Keys, Key—it's difficult. Jack Key was never particularly active in the Medical Library Association.

F: Which is why I don't remember his name.

H: You don't remember him at all because he really never did anything. He was very interested in Arthur Conan Doyle and he would write articles about him—medical aspects about [Sherlock Holmes]. To his credit, he did make sure that Mayo was represented in AAHSL [Association of Academic Health Sciences Libraries] and the Regional Medical Library committees. He rarely went to the Regional Medical Library meetings; he'd send a Mayo librarian. But those were my predecessors at Mayo.

When I announced my retirement, the senior administrator for education came to chat with me—initially, I think, to say, "Well, won't you please stay." But he also said, "Between you and Jack Key and Thomas Keys, there's seventy-five years of continuity." Well, there was, and I think that was part of the strength of the library—that the directors had not changed. Their continuity was very strong, and the staff, long-term staff, they're hired and they never leave. It's very similar with the physicians. They are hired, they like to work at Mayo, and they just never leave. Very small percentage turnover of staff at Mayo.

F: Yes. You and I have talked about that before, but one of the hallmarks of Mayo seems to be the loyalty that people feel to the institution and how many years of service most of them put in.

H: Correct. It's not unusual to have twenty-five, thirty, thirty-five-year employees—not just in the library but all departments of Mayo.

F: So coming in after long periods of stability, what were the issues that you saw with the library at Mayo that you needed to start dealing with?

H: Well, first of all, they were way behind in library automation. I don't think that was for lack of trying. The former director, when I came in, was not interested in automation; knew nothing about it. But to his credit, he made sure that, when MEDLINE became available, the librarians were trained to search, because he recognized that was a great service to Mayo. But in terms of following implementation of automation for either tech processing or a library management system, that was way, way behind. So one of the big things that I really needed to do very quickly was make sure that we selected and implemented a library management system, which happened the first year. It was Innovative Interfaces. The librarians went on field trips to two different places to get insight into the library management systems that were in operation. I took a librarian but also IT staff, and together we made the selection. Turns out the IT staff was more interested in a system that allowed some tailoring and opportunity to get data out, but it didn't have the sophisticated acquisition and serial system that Innovative had. So there

was basically a confrontation between IT and the library, which I had to solve, and I just said, "Well, we're going with Innovative," and that's what we did. So automation was really, really big.

The other thing that had occurred over the twenty-five years of the previous director—and he was a very nice man, but I think lost contact... it's a huge institution and easy to lose contact—but there was no advisory committee, no one that was feeding him information about what was going on in the various departments. He was more interested in the history of medicine and writing about his pet projects than really anything else. I thought that a library advisory committee would be critical for me, because Mayo is really quite different than a traditional academic medical center—very, very different. I was coming from a heavily intensive research environment at Upjohn and then a traditional academic medical center. At Irvine, I had been pulled away for so many different things that I hadn't had time, really, to concentrate much, certainly, on medicine.

I really felt that I needed a great group of people, to pull them together, to advise me and kind of tutor me, if you will, in this new environment. I'm working with the administrator—my administrative partner. Mayo always has this parallel group of administrators who partner with a director or physicians or physician leaders to make things happen, and they are typically very familiar with the way the clinic works and who to contact to get something done.

We created the library advisory committee and had some very powerful people on it, so that when we went for funding, we were pretty assured through this advice that we were going to be funded. The library management system and the system that we implemented for Ovid and Micromedex were very expensive systems—well over a million dollars. And for the library to go forward with that kind of funding request, you really need to have your ducks in order. The library advisory committee was very critical, I think, in that. But we had also done our homework. We knew exactly what we needed to do and how long it was going to take, how much it was going to cost and so forth. So the automation efforts were initially what I needed to do, because they were really way far behind on that.

I really kept the library advisory committee in place for twenty-one years, all the years that I was there. Initially we met monthly, particularly in the first few years, because things were happening so quickly and I needed their input as physicians, as scientists, students. Then we went to a meeting six times a year and it was videoconferenced to all the sites. I really felt that I got great advice. We had a great program of sending photocopies through the intercampus mail—a huge volume. When someone requested a copy of something, it was sent without charge. Then one of the physicians on the advisory committee said, "It's really nice that you do this and that I get it through intercampus mail. But why can't you just send it to me electronically?" "Well, there's no reason we can't." So we developed a system to do it. They were very, very helpful, I think, to me.

F: It strikes me as we talk, Michael, that you had an interesting series of positions that were in unique institutional settings. From the very beginning, when MEDLARS and MEDLINE were brand-new and you were in a particular role with that, having to figure out how to make that work. And then you went to Upjohn, with a very particular corporate culture and a thrust of how things were done, and you had to figure out, again, how to provide library services and position things and work with people [in that culture]. And then you went to Irvine, where, again, you were forced into a very different climate, a situation where you had to figure out, again, how do I maneuver here. And now you've moved to Mayo, which has its own very unique culture. Totally different culture, and a very strong culture.

H: It was sort of like reinventing yourself in all of those different jobs. It was not a continuity type of situation at all. It wasn't like moving from one library director in a medical school environment to another one. That wasn't it at all. These were pretty unique experiences.

F: Exactly. And at Mayo you had responsibility for a large historical archive, the traditional library services and getting automation in place. You had the bookstore. You had libraries in two other states.

H: Right. The library system at Mayo actually had sixteen locations, not including what we call the Mayo Digital Library, which was all the automation, all the databases, all the digital subscriptions and so forth. But these were physical facilities, including the historical archives—which is a history of Mayo Clinic—and a history of medicine library—which is a separate library within a library—and of course, the libraries in Scottsdale and Phoenix [AZ], and Jacksonville [FL], and then other branch locations in Rochester [MN].

Coming from Irvine, which had multiple branches, I didn't have any particular issues with physical locations. I did have problems when they couldn't get along. There are two very large hospitals in Rochester—the 800-bed Methodist Hospital and the 1,200-bed Saint Marys Hospital. They had been integrated into the Mayo medical center in 1986, which included the two libraries. The two librarians then started reporting to my predecessor and of course continued with me. But they continued to operate independently. Each one of them had a different cataloging system, which was different than the main library. So it was like, what?

Then the two branches in Scottsdale and Jacksonville, now called Mayo Clinic Arizona and now called Mayo Clinic Florida, those had been established in 1986 by Mayo to replicate the clinical center in Rochester in terms of clinical education and research. And for some reason they didn't report through Rochester; they reported to their own boards. It was very complex. I had to learn that these librarians, who actually had a dotted line to me and were completely dependent on the Rochester libraries, could tell me to take a hike if they wanted to, because they were dotted-lined. They probably wouldn't want to do that, but, at the same time, I had to operate an environment where there were direct reports and indirect reports. That was changed ten or twelve years ago, when Mayo

decided, "This is not working; we don't need three boards of governors; we don't need three this, that, and the other thing."

But when I came, the two small branches in Arizona and Florida were essentially running their own computer operations for the Micromedex and Ovid, and they were wondering, are we going to be operating that also for the library management system. That was the perfect opportunity to say, "No, that doesn't make sense. And by the way, we're going to consolidate the others as well." Initially, I think they were somewhat concerned about that, because they were losing some degree of their identity. There was only one librarian and an assistant in Florida, and she worked directly, then, with an IT person that mounted the media for Micromedex and Ovid and stuff like that. It didn't make a lot of sense. Then I discovered that there were triplicate bills coming—and not an attempt at fraud by Ovid or Micromedex at all; they just didn't understand the complexity of the Mayo organization. So all of that was centralized. What we tried to do was centralize those things that made sense—automation, for instance—and decentralize those things that made sense. We certainly don't want to control circulation messages that Arizona wants to give to their patrons when you can have the system do that automatically. So there was some degree of decentralization and some degree of centralization.

Another interesting aspect was that my predecessor at Mayo essentially chose all of the books and journals for the big library in Rochester. And when I came—of course, I had no experience with that to begin with—but the head of acquisitions, I thought, would be the person who would be responsible for all the collection development. I sent her an email one time about a new set of something and I said, "You'll probably want to take a look at this in terms of the collection development policy," and she immediately made an appointment to see me. And I said, "Well, sure, come on up. I'd love to chat with you." Arlene Weismantel was her name. Very fine librarian. And she said, "Michael, your predecessor made all these decisions." I just gulped. I couldn't believe it. I said, "We're not going to do that anymore." So we created a collection development committee and gave them ultimate responsibility, including budget responsibility, for the book and journal collections of the main library. And then the branch libraries, the two hospital libraries, the medical school library, the health sciences library, and certainly the history of medicine library all had their own specialist who did collection development. The collection development committee was basically just for the main collection, which served the entire universe of Mayo. But I was very amused that the director would have had time to do that, but I don't think he was really doing too much else.

F: In my experience that's not unusual. I've seen numerous cases where the person found it much more satisfying to do book selection than to deal with being an administrator. And not doing things that they didn't enjoy. So I'm not terribly surprised.

H: Well, of course, I had never done that before so I probably wouldn't have enjoyed it, so I decided to outsource it to a committee. And they did very well. They created a collection development manual with levels of collecting. I think it all worked very, very well, ultimately, and it ultimately worked quite well to have the two big hospital libraries have their own collection development. Everything was funneled through central

acquisitions. Arizona and Jacksonville and all of the branch libraries used a central acquisitions because they're very capable of creating those order records and following up and everything.   And then we have a central cataloging department that's very expert. There's no need to have multiple cataloging departments. So all that was changed when I came.

F: Very streamlined.

H: Very streamlined—the whole thing.

F: And then at the end of December of 2014, you retired as the director. So what gives you the most sense of reward or satisfaction with your twenty years at Mayo?

H: One of the things was that we created a cohesive team. 'Team' is probably too strong a word because, if you don't work together all the time, it's difficult to be a true functioning team. But created a situation in which the staff of the libraries at all sites— Arizona, Florida, Rochester, Wisconsin and so forth—really enjoyed working with each other. Created a situation in which we were able to justify money for new programs, which energized the staff. By the time I left, I think people were working exceedingly well together.

The other thing that took multiple years to do was to create an awards system—academic advancement scheme—which didn't exist at Mayo before. When I arrived, there were two levels of librarians. There were five supervising librarians at a certain salary level, and then all the rest, no matter what length of time they had served or how well they had done, they were at the same salary. Based on my experience at the University of California and at Upjohn, both organizations which have these elaborate advancement schemes based on—not entirely years of service but based on the level of responsibility of the job… We had [at Mayo], for instance, a senior reference librarian with thirty-five years of experience being paid at the same level as an entry-level librarian. And I thought that that was very unfair.

F: That's amazing.

H: Yes, but that was true of many places at the institution, so it wasn't unusual for the library to have this. But I thought, just based on that, it doesn't make sense. Working with schemes from the University of California and University of Alabama and various organizations that had over the years made sure that their academic advancement schemes worked well, were efficient, and were documented extremely well, we were able to work with human resources to create an advancement scheme not only for the librarians but for library staff, which really encouraged them to do more than just their job.

They could be considered for advancement if they—they had to be excellent in their job; there's no question about that—but if they chose to do more, such as write a paper, do a poster, and over time—they had to be in their position for three [years]—they could be

considered for advancement. We worked directly with a liaison in human resources at Mayo, who met with us frequently over a period of three or four years. This was very concerted work, very difficult work, defining what levels are and writing all the job descriptions. Finally, doing all of this work—we really knew what we were doing—human resources at Mayo approved the scheme.

We've had a number of advancements that have occurred in the librarian series. Oh, and when we implemented it, I was successful in getting raises for everyone. That was before 2008, when the recession occurred, and I wouldn't have been successful, probably, then. Of course, everyone was very pleased with their raise. There were some people we recognized would plateau. There was no problem if they wanted to plateau. They were expected to be excellent no matter what, but if they wanted to plateau and not move beyond Librarian 2 or Librarian 3, that was okay. But if they wanted to advance, they really had to be professionally active—not just externally but volunteering for committees and doing things internally as well.

I think that, in terms of the impact on the staff, was perhaps one of the most significant things that I did, and insisted on doing, at Mayo. It took me a long time. I think it was the first year I met with human resources, and once I understood what was going on, I said, "This is not fair. Everybody gets [raises] through these incremental advancements, they all get to the same salary, and then they're at top of range forever and ever and ever." And the person in human resources at the time, nice lady, older lady, said, "You're right, it isn't, but that's how it is at Mayo. Everyone eventually gets to the top of the steps and they don't move." They might get four or five hundred dollars when there's a range adjustment or something.

What we implemented was the recognition that not everybody's job is at the same level of expertise—that was not recognized before—and we implemented a scheme through which both the paraprofessional staff and the librarians could advance if they so chose to advance.

F: I can imagine why it took multiple years to get that established and approved.

H: You were essentially going against the culture of Mayo. So it was really difficult to do that—difficult conceptually for the institution to move, difficult simply just because it was a huge amount of work to rewrite all the job descriptions. But we created the librarian series with Librarian 1, which would be a non-degreed librarian—someone with at least a bachelor's degree could be a Librarian 1. The beginning level with a master's was Librarian 2. And then to distinguished librarian at Librarian 6.

Then we had three different classifications for the paraprofessional staff—the library assistant series, the library associate series, and then the library specialist series—each with three levels. Again, recognizing that someone that's been working in acquisitions with money and with the acquisition systems for thirty years is at a library specialist level—perhaps library specialist at the top level. And someone that is working nights in

the Plummer Library reshelving things and answering the phone and being there is not at that level.

F: In terms of responsibility or contribution.

H: Correct. We were able to collapse about thirty or thirty-five different job descriptions for the paraprofessionals—each one had a separate job description—into nine. We were able to collapse twenty different librarian job descriptions, all with the same salary except the librarian supervisors, into six. So human resources was pleased; they were very pleased with that.

F: Well, good, they should be. You did a hell of a lot of work for them.

H: We did do a lot of work for them. We really did.

F: To create a much better system.

H: To be sure, they were so pleased that they went out and did a salary survey for us and said, "Oh, I think we need to move these up." I agreed. We're going to have a raise!

F: And money to do it.

H: And money to do it. When I came to Mayo, I was warned by one of the physicians on the library advisory committee, who said, "You know, you can have a lot of ideas at Mayo"—and he was thinking of me just getting started—"and if you put too many forward, it's going to be a problem, because they're likely to fund them if they're good. Mayo has always had money to fund things if things are good. They've never been so picayunish that they haven't funded things.

F: And then you reached the point when retirement became interesting.

H: Yes. I didn't really want to retire when I did because I was still enjoying what I was doing. I thought I'd rather retire in June of 2015—this year—because my MLA committee appointments, of course, end in May at the end of the annual meeting. So I thought that would be a good time to retire. But Mother Mayo, in its infinite knowledge, decided to end a benefit that those of us who had been there for a long time had, which was a Medicare supplement benefit. You had to retire by December 31, 2014, in order to retain the benefit, so that's when I retired. My financial assistant said, "Why do you want to work six months and lose this benefit?" This is the Medicare supplement which you'd pay quite a bit on the open market that Mayo pays. Well, I pay a little bit, but Mayo takes care of it. So that's why I retired when I did.

F: You have to be financially prudent.

H: Right. When I turned sixty-seven, I said, "Well, I can't work forever," although I really was still enjoying working. Some people can work forever, but I was talking with

one of the fellows in gastroenterology—I knew him early on in my career because he had to come to me to borrow a rare book to go to an exhibit. He came and we chatted. Much later, the year that we retired this past year, he came and he said, "Well, I've worked here for forty-three years and I'm still enjoying it. But my wife is saying that we really just need to do something different." And he said, "Maybe after forty-three years it's time to do something different [laughter]."

F: Throughout your career you've made time not only to be really focused on the jobs that were your primarily responsibility, but you've made time to teach, to publish, to serve in many roles in professional associations. What motivates you to be so busy in so many areas?

H: I think, again, it's probably from my parents. My dad was very busy, and initially he'd work six days a week at the drugstore. He loved to work at the drugstore. But he somehow found time to be mayor. He found time to be a 32nd-degree Mason and a Shriner. And he was chairman of the school board even though he worked very, very hard. He would get tired but he really was wanting, I think, to give something back to his community. My mother was the same way, always volunteering at the hospital sort of as a candy striper and in charge of the Rainbow for Girls, which is like DeMolay for the Masons. They just were active, and sort of like, it's expected.

When I went to UCLA—of course, I was busy at Chicago getting my degree and writing a thesis and everything—but when I went to UCLA, again, an expectation. You will become a member of MLA. You will become a member of MLGSCA [Medical Library Group of Southern California and Arizona]. And you're expected to work in these—not just to go to the meetings. From the get-go, it's volunteerism. I've just enjoyed being of assistance. It's not like I had to be in charge of something; it's just like, I need to help out. I didn't need to do these volunteer activities to advance academically. I didn't need to do these things to have additional salary. It just was something that I thought was very important for me, individually, to do to help out my community. In Rochester, for instance, I was on the board of directors of a foundation that raised money for the developmentally disabled and [those with] traumatic brain injury. Well, I didn't need to do that. And I was on the vestry of my church and I organized the dinners for Dorothy Day House that my church provided every other month. I didn't need to do that but it was something that you're giving back to the community. MLA is the same way. When I look at the list I think, "My God." Of course, that list is over forty-three years, remember.

F: But it's still a very extensive list because you served on or you chaired dozens of committees. You've been active within sections and chapters. You served on the Board of Directors twice. You were MLA president. You've received numerous honors and awards. Were there committees that you particularly enjoyed or thought had the greatest impact for the association?

H: All the committees had some degree of fun to them and some degree of contributions. When I was working with the Librarians without Borders Committee, I enjoyed that

committee because there was a terrible amount of commitment by the members, trying to do well in terms of our international stance. And the predecessor committees to that committee were fun—trying to think about the place of MLA in the international context. And it wasn't, for me, necessarily about traveling to foreign places as a vacation. No, I really thought that MLA, as the largest health sciences library organization in the world, should provide major assistance to the world. So how do you organize that? Well, it's currently organized in the Librarians without Borders. This committee is going to undergo some changes, I think; good changes, probably. So that was a lot of fun.

The committee that I enjoyed—and I can't remember whether it was the AAHSL or the MLA appointment—but it was the Joint Legislative Task Force. Wow, that was an eye-opener, just an incredible eye-opener. The first time I served on it, I was president of MLA, and then later, same position at AAHSL. Then I was appointed to the committee for several years and served as the chair at some point. Again, as chair, I don't know if I was for MLA or for AAHSL. But it was a joint committee, so it served both organizations. It wasn't the fact that we took a trip to the Hill; it was the fact that the National Library of Medicine can't advocate on its own behalf, so somebody has to do it. And who better than the Medical Library Association, or AAHSL?

I remember one time we were organized so that we would visit the congressional offices—either the House or Senate—of our representatives—so Norm [Coleman] had been elected senator from Minnesota. We went down to Washington. He was pretty new down there, and he had brought some legislative staff from St. Paul, because he was the mayor of St. Paul. There was this young woman that we were assigned to meet. If you are from the state, you take the lead in making sure that the legislative assistant—you almost never get to see the representative or the senator—but you take the lead to make sure they totally understand why you're visiting. And they're usually very good at taking notes and so forth. So this young woman—an attorney from one of the law schools in the Twin Cities—had come down with the new senator. We're meeting with her, and of course, I'm chatting with her. All of a sudden I'm seeing that she's really not understanding what I'm saying about the NIH and the NLM. And I said, "Do you know what the NIH is?" "Well, no, I don't." Perfect teachable moment, because you can then say, "Oh, well, the National Institutes of Health is the funder of all the significant research that goes on in the United States." Oh, then she understands. "And the National Library of Medicine—how does that fit in?" "It's part of the NIH, and it is the infrastructure that's so critical for information." "Oh, okay."

That committee was really a lot of fun, but it really did a lot of good work, and it underscored for me that there has to be constant publicity and promotion of the good works of not only the NIH but certainly of NLM. It also underscored for me the fact that that's true of our own organization. The library has to continually promote itself at the local level. It cannot just sit and do nothing, because it will disappear.

There were many other committees—the [Pharmacy and Drug Information Section] committees… I remember when I was on that and chaired that, I got Elsevier—not Elsevier, the publishing company, but Elsevier Foundation—to fund an annual speaker. I

remember that Elsevier publishing company wasn't highly regarded at that time by MLA and there was great consternation in the board that we would accept this funding for a speaker for the annual meeting. But they eventually approved it. There were so many committees, it's hard to remember all of them.

F: And then you served twice on the Board of Directors. Thirteen years apart, if I remember correctly.

H: The first time I ran for the board, I didn't win. I remember sitting in Kalamazoo and getting the message, but then seeing a note from Phyllis Mirsky. She said, "Well, it happens. You sometimes win; you sometimes lose. But be sure to run again." So I did and won the next time for that particular board [1986/89].

At that time the executive director was Ray Palmer [1982-1991], who I would say was more of the imperial director type than Carla Funk was. Carla was quite different in terms of the way she chose to lead the MLA headquarters staff and work with the presidents and so forth than Ray Palmer. Ray Palmer was direct, and "You will do this, you will do that." I remember at some point there was a meeting—I think Eleanor Goodchild was on the board at that time. Well, he was being so stern, he had a couple of the board members—and these are medical library directors; these are significant people—he had them in tears.

F: Oh, really?

H: Oh yes, oh yes. When I was on the board for the first time, I was appointed the chair of a committee to deliberate and attempt to select an association information management system [Information Systems Task Force]. Sherry Fuller was on the committee with me and a bunch of other people. We just went 'round and 'round and 'round with that with headquarters. They either didn't have enough money or they couldn't decide what they wanted. They had this whole list of requirements. It was like, oh, my God. Finally, Sherry just had enough and she said, "Michael, I just can't stand this anymore. I'm going to resign." [Laughter] "I can't blame you, Sherry. It's not your fault!"

F: It's not going anywhere.

H: Oh, we worked for three or four years and nothing happened! Nothing happened. Well, they just didn't have the money to do what they wanted to do, and there were systems out there that could do what they wanted to do, but they didn't want to pay for it. So what are you going to do?

The second time that I served on the board I was president-elect and then president, past president.

F: Who else was on the board with you at that point?

H: Oh, M. J. Tooey—a bunch of people that I still maintain contact with. They were just great. I remember we had an opportunity with the Pew Trust to deal with something related to libraries [editor's note: best practices for establishing credibility of health information online], and I asked M. J. to take over that responsibility. She did a super job and continued to contact Pew on behalf of the medical libraries and I think really made some significant headway on that.

The year that I was president [2000/01] was when the informationist concept came out from Valerie Florance and the physician [Frank Davidoff]. We encouraged the National Library of Medicine to set up a conference around that. I ended up giving a little bit of a paper there. Julie McGowan was also on the board at that time. There were a lot of really, really good people.

F: Were there emergent issues that came up?

H: Well, one of the big issues that I was terribly interested in was the fact that I had been editor of the *Bulletin [of the Medical Library Association]* for four years, and all during that time I had been pressing MLA and the board to at least make the table of contents electronic and to move forward with that. And of course, pushback, pushback—not because of the concept but because of the money. Always because of money, usually. That was something I really thought was very important to do. That was finally accomplished through Allen Press, as I recall. Others, including Rachael [Anderson], had wanted us to go with HighWire Press because they were the digital publisher of some of the important clinical and research journals, but of course that was going to be too expensive. It really happened that as I was becoming president and Scott Plutchak was taking over as the editor of the *Bulletin* that we had achieved the electronic table of contents. But PubMed Central came about and [digitally archiving the journal] didn't cost us any money. Well, there's some money to do all the preparation. I was so elated, because I had worked for so long to do something digital with the *Bulletin*, and all of a sudden, because PubMed Central came into place, we could actually do it. I was really, really pleased about that.

Scott promoted the change of the title to *Journal of the Medical Library Association*. Naomi [Broering] had toyed with that idea of changing the title, and she had encouraged me to change the title. But I decided there were plenty of other things to do with the journal in taking over from Naomi that I needed to do, rather than immediately changing the title. But I think it was a good change.

F: It was a good change. And you're right—when Naomi Broering was the editor, I think she was the one who started the idea—the question—of changing it.

H: Yes. The idea had been around for many years to change it, so it was good that we did.

F: It was time. And then you were elected to become MLA president in 2000.

H: Yes, yes.

F: What were the issues that shaped your presidential priorities? What was the context at that point?

H: I was editor of the *Bulletin*. So I was seeing all kinds of wonderful manuscripts coming through and being able to track all of the different issues based on the manuscripts that were being accepted or not accepted. And I was very happy being the editor of the *Bulletin*. I worked with an artist at Mayo to create the covers, and then was on the Centennial Coordinating Committee and created the whole approach of the *Bulletin* for the 1998 centennial. I was loving being the editor of the *Bulletin*, and then, of course, working always towards the digitization of the journal. So I was happy being the editor.

Then they convinced me that I really should run for president, which I initially really didn't want to do, because I was having a great time being editor and having a great time being the director at Mayo. I really didn't see a need to do anything different at that time. But they were convincing that I should run for president. It was like one of these, oh, okay, if you insist.

F: Was it one person from the Nominating Committee who sort of cornered you and pushed you?

H: I think Wayne Peay tried to corner me a few times at a meeting.

F: Oh, and Wayne can be quite persistent.

H: He's very persistent, but in a very nice way. My thinking about it was, first, I was pretty sure I wouldn't win, which was fine with me, because I could continue being editor of the *Bulletin*. I wasn't trying to get out of the job of being the editor; I had just been reappointed as editor for another three years. I don't think they notified you who was going to be running against you—they didn't at that time anyway—so I agreed. Then Jim Shedlock was running against me, and I thought, "Oh, that's too bad, because..." When I won, I thought, "Oh, I think Jim would have been a great president." But somebody has to win, so I became president.

F: And oftentimes it's two really good people who each would have been a wonderful president.

H: In my case, I had the fallback position of being editor of the *Bulletin*. It's always nice to win, I guess, because you're always apprehensive about, oh, the name's out there now, and who's voting for me and who's not voting for me. So, anyway, I was president.

I enjoyed the year as president. We talked about the informationist project, the Pew project. I can't remember all of the projects. But one of the most enjoyable things about being president is the fact that you get to visit the chapters. You're an invited guest to

present what MLA has been doing at all of the chapter meetings. So many of them occur in the fall, so I'd already told Mayo. You know, Mayo only gives you—for their consulting series people, the directors—they only give you eighteen travel days, and so I had to work out how many days I could actually be gone.

F: The presidency is a very big commitment.

H: It's a very big commitment in terms of days, and Mayo was just exceedingly wonderful about that. I enjoyed all of the chapter meetings. Some of them were more raucous than others. I remember the Southern Chapter meeting in Mobile being really quite interesting from a variety of points of view.

F: They like to party as well as meet.

H: They love to party, and there was no end of parties in the Southern Chapter. I loved the meeting [South Central Chapter] in El Paso. I had never been to El Paso before, so that was great. And at one point I didn't even come back to Rochester; I just went from one city to the next, boom-boom-boom, to hit all of these chapter meetings. I went to Alaska [Pacific Northwest Chapter], to south of Anchorage, to a ski resort, and it was September. In the daytime it was sunny; it was fairly nice. But there was frost on the cars each morning because it was already getting really pretty cold.

I do remember one thing that I did when I was president. I wanted to have a research award. So I talked to Carla about that. I said, "Do you think that Don Lindberg would lend his name to an award?" and she said, "Well, I don't know. We'd have to go and ask." We made an appointment, and I said this was to be an award for research related to libraries, and it would be the Don Lindberg Research Award. Carla and I made an appointment to see Don in his office at the National Library of Medicine. I presented this. I said, "MLA needs this. We need to have this kind of research done. But it would be really nice if we could put your name on it, because then it would be honoring you." And of course, I didn't know what he was going to say. He got a twinkle in his eye and he said, "Oh, I think that would be just fine." [Editor's note: The Donald A. B. Lindberg Research Fellowship funds research linking information services provided by librarians to improved health care.]

F: Well, I'm sure you pitched it well. But it would also be very congruent with his interest in promoting research and quality work.

H: Right. You never know when you go in to talk to a leader like that what they're going to think or who has approached them before or who's approached them and then not come through. Of course, it wasn't funded, and NLM and Lindberg were not expected to fund it. So for the first two years I arranged to have funding come from Mayo, from the library's budget at Mayo. Now it's more the traditional way of trying to fund those things.

F: Right, because there's an endowment in place for it.

H: Correct. But initially there was no endowment, so Mayo created the endowment, basically.

F: Well, that was very generous.

H: Yes. Well, those were the good times when there was plenty of money at Mayo.

F: But I think that's a fact that's probably not widely known.

H: No, nor should it be, necessarily. But it was one thing that I delighted in: that we were able to create an award and it was with Don Lindberg's name, who is a great man.

F: Yes. And as you were saying, Carla had come on as the executive director [1992-2015] as well, before you became president. Very different leadership style for the association. And I would think a wonderful person to work with as MLA president.

H: She was. She was really able to get to know the president and their peccadillos and their wants and desires and so forth. She was excellent at that. And what she really always tried to do was to keep the president informed of everything. She was completely transparent. We didn't talk about personnel issues at headquarters or anything like that. That was completely verboten unless she wanted input—she knew I had done some personnel work. But we never discussed it.

Initially when I became president-elect—moved into president—she wanted the team, which was the president-elect, president, and I guess it was the past president as well, to go to some management training, which we did, and do the Myers-Briggs and sort of be together as a team. And that was very good. Because she was a real association executive who had gone through all the training, and she really knew what needed to be done.

She was really quite good at finessing and handling any little infighting that might occur at the board. I'm lucky to say there was really none when I was president. But she was excellent to work with. But initially, I said, "You mean we're going to talk once a week?" and she said, "Yes, I need to talk to you at least once a week on the telephone. And sometimes it will be a very short call. Sometimes it may be a longer call depending on whatever the issue is. But things come to my attention that you will not know about unless we talk, and you need to be completely informed." So once a week for the entire year we chatted. And it was really great. Sometimes there were small issues and sometimes there were great national issues. I think probably in one of those conversations I concocted, with her advice, the Don Lindberg Award, and we schemed as to how we were going to do it, when were we going to be in Washington next, and, oh, we'll probably be there for the Hill meetings, so let's go have an appointment with Don at that time.

She was very easy to work with. I had worked a little bit with her before I was president on the Centennial Coordinating Committee, and she was very instrumental in that. June Fulton, of course, was the chair of that committee. Rachael Anderson—Keller Goldwyn or whatever it is now—was president. Rachael really had very set ideas about what needed to be done, what didn't need to be done. I could tell that there was a little bit of conflict, not only with Rachael and some of the other members of the committee, but also with Carla, because Carla was just trying to get things moving and get things done, and yet Rachael had very definite ideas about exactly what should be done and how they should be done. And of course, it's sometimes difficult. You can state what needs to be done but usually leave it to others to determine how best to do that, but Rachael was being very prescriptive, and it took all of June's finessing to keep things on track with that committee.

So I got to know Carla a little bit during that time and respect her. Of course, she had such a different style than Ray, who was very directive, almost a pompous kind of style. Not personally—I liked him very much personally. But when he was in the executive director role, it was like, oh, my God. He changed his personality quite a bit. Not Carla; she was the same—consistent, stable. If someone said something outrageous, she never, never said anything. She said, "Well, let me think about that." She had all these ways of finessing things. Ray would just say, "That's stupid." Well, it probably was stupid, but you don't say that to your team [laughter]. But she was actually a delight to work for. Dixie Jones, the president at the time [of Carla's retirement], asked me to write the piece that I wrote in *MLA News* about Carla.

Carla was the one that suggested that I might want to become active in the international area when I was president. And I began the tradition—I guess it maybe is a tradition now after fifteen years—of the president going to the IFLA [International Federation of Library Associations and Institutions] meeting and being introduced as the president. When I was president, the meeting was in Jerusalem. I went to Jerusalem and of course found that working with Carla was really great. We had the no-host dinner in Jerusalem. It was really a great time.

Great, great person to work with and to learn from. She was very, very knowledgeable. But she was low key, so others who didn't know her didn't always respect that knowledge. She could be somewhat feisty sometimes, not with MLA stuff but usually with political stuff, because she's very well informed. She knew immediately when her senator wasn't doing something right. Her favorite phrase was, "Don't get me started," because she knew all the ins and outs of something.

There were a large number of committees.   All of them had been really great to work with. The last big committee was for the Boston meeting—the National Program Committee that I chaired. That was a great committee. Initially we had a little trouble deciding when to meet because Päivi [Pekkarinen] was in Helsinki, Finland, and there were two gals from the UK—one in London and one in the north of London; the member from Brisbane, Australia; and then people all across the time zones in the United States. It's difficult. We consistently met every month for three years to plan that meeting, and

that was really a lot of fun. And relatively little controversy. It was a meeting that included the veterinary medical librarians and the clinical medical librarians. It could have been a forum for problems, but it turned out to be great. [Editor's note: The 2013 "One Health" conference was a joint meeting of MLA, ICML (International Congress on Medical Librarianship), ICAHIS (International Conference of Animal Health Information Specialists), and ICLC (International Clinical Librarian Conference).]

F: It was very smooth, very well received.

H: I think it was a very good meeting. And of course, the bombing, after all this planning—when that occurred in the Boston Marathon, it was right across the street from the convention center that we were using. Carla called and she said, "Don't worry. I think it's all going to be okay." Of course, she was probably sweating bullets, and the team that manages the conventions undoubtedly was sweating bullets. But it did come off just fine.

F: Now, you were named a Fellow of MLA in 2003, and you gave the Janet Doe Lecture in 2009…

H: In Honolulu.

F: …You received the Carla Funk Governmental Relations Award in [2011], and then the Marcia C. Noyes Award in 2015. What did these MLA honors from your colleagues mean to you?

H: Well, I think it underscores the volunteerism, that they appreciate the assistance I provided. Nobody will know about it in a few years [laughter], so it really is your peers acknowledging that you did a pretty good job, and I appreciate that.

F: And you did a pretty good job in a lot of areas, Michael.

H: They were mostly a great learning experience. I had been on the National Program Committee before but never chaired it, so that was very much a learning opportunity as well. And to work with the great staff of MLA, like Ray Naegele, who just knows everything about those meetings, and then to talk to the keynote speaker about what the themes of the meeting were and so forth, that was a great learning experience. So if you could be presented the President's Award for something that was a lot of fun, that was great too! Who wouldn't like that?

F: Doubly rewarded.

H: Doubly rewarded. Absolutely.

F: And then outside of MLA, you participated in the work of the Association of Academic Health Sciences Libraries, the Coalition for Networked Information, the Group on Information Resources, IFLA, and other professional organizations.

H: Yes. I think for me, one of the most significant things was being named to the editorial board of *Academic Medicine*—the journal. It occurred in 2000, when I was elected president. A member of the board at the time was from Mayo, and he suggested to the editor—Mike Whitcomb, a physician—that the journal really needed librarian assistance because of the ongoing digitization. The journal really didn't know what it was doing, and they really needed somebody that had done this and then was involved in licensing and so on. So they appointed me to the editorial board. Initially it was really mostly consulting with the members of the editorial board—going to the editorial board meetings, which occur in the spring and at the AAMC [Association of American Medical Colleges] meeting, and talking to them about the way libraries acquire digital content and various business models—what are some good business models, what are some not-good business models, and what's the difference between a commercial publisher and a not-for-profit publisher—those kinds of things that, of course, we all know about. That was fun to get to know from kind of the inside out how a journal like *Academic Medicine* operates. And I got to know members of the editorial staff in Washington.

Then over the years—I served on it for fourteen years—they recognized that they get manuscripts for which I could be very helpful in reviewing. I would review four or five manuscripts a year for them, and they were very appreciative of that. I would usually do a very good job because I would do the research. It was kind of a medical education concept. Sometimes, since I wasn't directly involved in medical education, I'd have to read something as background information so I could understand what was being written in the manuscript. But I'd always understand it. I think they greatly appreciated my spin on it, because it was quite different than a physician reading it. So they kept sending me more and more manuscripts. Some of the physicians on the editorial board would just write these short, little things that it was very clear they'd probably done it on the plane somewhere and it wasn't really a quality review or necessarily even helpful. They did get an actual rating, so that was helpful for the journal staff. But they knew if it was coming from me that it was going to be an in-depth kind of review. Yes, it was coming from a librarian, but they ultimately quite respected that.

That was a great thing and it was a long appointment, but they kept reappointing me. I served under four different editors-in-chief. Then one of the editors-in-chief who's from University of Pittsburgh [Steven Kanter]—great guy; really liked him—he was attempting to hold the spring meeting at different campuses of the members of the editorial board. We'd gone to McGill, for instance, and met at the faculty club at McGill at some spring meeting years ago. So he approached me. He didn't say this in the group. He approached me, because he had been talking to the journal staff and they all wanted to come to Mayo Clinic. I arranged for a two-day meeting in Rochester. The library controlled the big reading room on the fourteenth floor, so we just reserved it and had a big table put in there. They were pretty impressed with the physical facilities. And we had a tour of the clinic and the carillon tower. They still talked about that years later [laughter].

That was a fun, fun assignment, where I learned a great deal and really kept me in the mainstream of medical education, which otherwise I probably would not have been—because we had a learning resources librarian that met with the education committee of the medical school at Mayo, so I would not normally have been involved in that.

[WAV file #3]

F: Like with MLA, you served on the AAHSL board of directors twice, separated by twelve years. Tell me about the circumstances that caused you to do that.

H: With AAHSL, you're not really elected, so to speak; you're sort of appointed to the Board of Directors [members vote on a single slate of nominees]. I enjoyed that time. It was a very informal group compared to the Medical Library Association or other associations that I was familiar with. That informality was refreshing, actually. And you did get to know the other people on the board.

Unlike MLA, which has used for many years a professional association executive, AAHSL used a contract executive who looked after certain things, but was not necessarily always knowledgeable about the profession—either of academic medicine or of librarianship. They handled money and they handled information systems and so forth. So that was a big difference.

The second time I was on the board, I was actually president-elect and the president of AAHSL. That came about because I was consulting with David Ginn and Roger Guard in a series of consultations about publishing and the relationships with publishers, as I recall. They really wanted my perspective, because Mayo, of course, is not only a publisher but also a very big organization with a big library budget and so forth. The president of AAHSL appoints a committee to recommend the new leadership, and so I was recommended. I became president of AAHSL [in 2004/05]. Again, very different than MLA. AAHSL, as an organization, I've always thought, was—maybe until recently—a very cohesive organization, because the academic library directors all knew each other for twenty, twenty-five years. We also grew up together in the medical librarianship field. We would see each other, renew our friendships and links at the MLA meeting as well as the AAMC annual meeting, and it was just comfortable. So that was a huge difference. The other thing that was different, of course, is that we were all academic medical library directors with responsibility to deans, or in my case, executive deans. We had the same sort of list of issues all the time, so we could always have something to talk about at those meetings, or on email on the official list and so forth. So it was comfortable.

I perceived one of the issues with AAHSL was that we didn't have a robust information system and that we really needed not just a website but we really needed a system. I was looking at the American Medical Informatics Association website—AMIA's website—and how sophisticated it was becoming. I'm thinking, I realize that this is a smaller organization; it's not wealthy. But it does seem to me that we need to have more than rudimentary kinds of things happening here. So one of the big thrusts that I was very

interested in was a focus on the information systems of AAHSL, and making sure that when members did this, that, paid for this, paid for that, that it was a straightforward operation, that the website was useful and so forth, and it wasn't at the time. So that was a big thrust that I had.

F: Certainly in the early days of AAHSL, because it was, I think, a relationship-based organization, there were always the criticisms that it was an old-boy network. Things sort of were agreed to on the side by a few individuals, and then projects happened or didn't. And then it seemed to me that AAHSL began to grow up after its first twenty or so years and began to really do strategic planning and set directions, and had productive committees and task forces that created new things and directions, and a much more tangible organizational accomplishment.

H: And I think I agree with that. Initially, when I became a director—of course, if you're not a director, you sort of look into this AAHSL group of directors, being somewhat envious, I suppose. But I looked at it, before I knew too much about it, as being an unnecessary group that really should have been a part of the Medical Library Association, that these directors certainly could meet as a part of MLA. But when I became a director at Irvine, I realized that these directors share things in common that are not in common with hospital libraries, for instance—

F: Exactly.

H: —and that the forum that they have at a AAMC meeting becomes an important forum. It renews relationships and friendships, yes, but it forms part of the cohesiveness—part of the cement or the glue—that holds this group of disparate directors together from different parts of the country with different sizes of organizations and so forth. After I became a director, it became far more obvious how important it really was.

It's sort of like the ARL organization, the Association of Research Libraries. You have to be a certain size, first of all, to be a member of the ARL, and then within that there are the big libraries, which tend to have separate lunch meetings during the big ARL meeting. And if you're looking in from the outside, that seems unnecessary and elite and why are you doing this. But if you think about the AAHSL kind of situation, it makes sense that Columbia University, University of Chicago, UCLA, and Berkeley have things that are in common that are not in common with small university libraries, which have small budgets, small staff, and so forth. They may have enough volumes to become a member of ARL, but they're not Columbia; they're not Chicago. For me that's very similar to the AAHSL situation.

For instance, for the Joint Task Force, both organizations [MLA and AAHSL] funded the lobbyist. Of course, that's no longer the case now, but it worked well from a funding perspective that one organization alone couldn't afford a lobbyist, but two working together could. I think that worked really well.

You mentioned the Coalition for Networked Information, CNI, and it's one of those organizations that I really didn't pay much attention to when I was at Upjohn, where the pharmaceutical industry has its own organization—Pharmaceutical Manufacturers Association with a science information subgroup, which I was active in. But when I went to Irvine, the Coalition for Networked Information became far more important, and I recognized its importance. Not everyone went; it was usually only the university librarian who went—maybe head of systems. I really thought that it would probably be important for someone like me, the AUL for the sciences, to go to that. I didn't get to go. So when I went to Mayo, I had Mayo join it. I began attending those meetings, which I think, for me, were terrifically important from a continuing education point of view, and knowing what is on the cutting edge of information, and being able to talk to these highly conversant physicians or scientists who know what's going on out there. A majority of the rank-and-file physicians certainly don't, but CNI, I thought, was stimulating—very stimulating. It met twice a year, so I normally didn't go to the two meetings unless both of them were really good meetings. That was a good meeting to, again, see what's going on with the big university libraries or big research laboratories that are members of that group. Usually a great group to have lunch with and generally very accommodating, of course. They always said, "Mayo Clinic? Why are you here?" type of thing, but you talk to them and they're good.

Clifford Lynch, the executive director, was at the University of California, Berkeley initially and is responsible for Melvyl and some of those things. When I first went to Irvine, the University of California had all these terminals—not workstations, but terminals distributed about, and some kind of routing system. Clifford came down with a couple of staff members from the Office of the President. He was at Berkeley at the time at the Office of the President. We were sitting around this table with the other AULs, and he's talking to the university librarian about these terminals that had been given or expensed by the Office of the President. He was basically saying, "We don't want to have responsibility for this anymore." Of course, Cal Boyer being very nice and everything, so I just said, "Oh, so you're just divesting yourself of all of this equipment and expecting the University of California, Irvine to take care of it." It was pretty direct. Well, you don't say that, I guess, to Cliff Lynch [laughter]. But that's exactly what he was doing. There was a pregnant pause in the room. He became the executive director of the Coalition for Networked Information. Before him was a great guy who died kind of young, after whom an award in CNI is named [Paul Evan Peters]. It's five or six thousand a year to belong, but I think well worth it. I'm sure Mayo probably won't continue it. But I was really interested in doing it, so I joined.

When I went in 1994, that was the first year of a Digital Libraries conference ["Digital Libraries '94: First Annual Conference on the Theory and Practice of Digital Libraries"] organized by Texas A&M University in College Station. And so, oh, College Station; Dottie's down there. So I called Dottie [Eakin] up and said, "Dottie, can I stay with you?" The Coalition for Networked Information was sponsoring the first ever Digital Libraries conference, or the Texas A&M department of engineering and computer science was. That turned out to be very interesting because that was well before anything

was happening. I mean, all of these places had tapes, but they really didn't know what to do with it yet. That was pretty fascinating.

F: Well, I was going to ask: GIR, IFLA—anything else that you want to say about any of those?

H: Oh, the Group on Information Resources. The GIR, of course, is a creature of the AAMC. Unlike AAHSL, which is affiliated with AAMC through the Council of Faculty and Academic Societies—its new name—GIR is actually funded centrally through AAMC. So it's quite different. GIR asks AAMC member organizations to appoint representatives. Typically, the medical library director, maybe the head of computer systems, maybe the CIO, are appointed to be representatives. I asked to be appointed to that and so served [most of] the twenty-one years that I worked at Mayo as the GIR representative, along with other people from time to time.

They struggled initially as to what they were going to do and finally came up with the notion that they were going to create this statistical database like AAHSL had created for the libraries. It just became, at least for us at Mayo, impossible to fill out, because it was targeted, of course, at a traditional academic medical center, and Mayo is not that. So they would ask, "How many workstations are in your medical school?" Well, the medical school is a tiny part of Mayo, so we'd say, "Fifty thousand." Well, that was off the charts [laughter].

F: And they didn't know how to deal with it.

H: No, they didn't know how to deal with it. Finally, I wrote to [Morgan Passiment]. I said, we really do want to conform and we really do want to be helpful to you and GIR, but I said, the way that this is structured, it takes an enormous amount of time to answer—and then we have divisions at Mayo that refused to answer because they think it's a trade secret. Why are they asking this? Well, of course, they're only asking about the medical school.

But Mayo wouldn't even know about the medical school because it's so tiny. It doesn't even have its own information technology department; it's all centralized. The IT department, even though they perhaps want to be helpful, they really can't; they don't know. We finally, for a few years, didn't answer the questionnaire but always responded to her that we just weren't doing it because of this reason. Then I got permission from the IT person that was assigned to education and research. Again, IT is kind of hierarchical at Mayo as well.

And so GIR—interesting. They had the technology conferences. I attended several of those that were quite good, one in Vancouver, BC, and a couple of other ones. Again, similar but slightly different than the Coalition for Networked Information in terms of experts coming to talk about emergent issues in technology. A lot of the things that the GIR deals with are authentication and medical students and their information systems— things that I'm not particularly interested in but which are of great interest to people who

manage the information systems of the medical schools. I tried to attend those meetings when I could. But for me, at Mayo, attendance at meetings was really dictated by the number of trip days that I could leverage out of Mayo. If the meeting was on a Monday, I could leverage flying in on a Sunday and staying over for a Monday. You had to kind of leverage everything, which everybody has to do, of course.

F: I mentioned IFLA.

H: Oh, IFLA. I enjoyed my time with IFLA. I think I served for maybe up to [eight] years, successive reappointments on the Standing Committee for the [Health and Biosciences Libraries Section]. IFLA is a byzantine organization. I still don't completely understand how it's governed or necessarily even how it operates. But the Health and Biosciences Standing Committee was an official standing committee for which you had to stand for election and you had to be recommended by the Medical Library Association, in my case.

One thing the Standing Committee did was to construct meetings during the IFLA annual meeting. We usually had up to two meetings where we would have speakers and so forth at whatever location IFLA happened to be. The other important thing that the Health and Biosciences Standing Committee did was to select the site of the International Congress on Medical Librarianship. That was kind of a creature of a creature. There was no funding coming from IFLA, but IFLA wanted some control. And if there was any money to be made, then of course, IFLA wanted money to be made from ICML. So an important part of the Standing Committee was the selection of the site for the ICML, and then the organization of the meetings at the IFLA annual meeting and exposition, which was held at different parts of the world. It was fun.

The meetings that were organized were actually very topical and often very good. You never knew if speakers were going to show up at IFLA because of funding issues or visa issues, depending on the country they were coming from. I went to one meeting and not a single speaker showed up. They couldn't get visas and there were no substitutes and so they just canceled the session.

F: No program.

H: No program. Goodbye, no program.

F: IFLA is a very unusual organization.

H: A very unusual organization. But I met people there, like Päivi Pekkarinen from Finland who I convinced to be on the National Program Committee for the [MLA] Boston meeting. And she was and came to Boston. It was very interesting to hear the differing points of view of the members of the Standing Committee. I remember there was a Health and Biosciences meeting in Quebec, in Canada. It was one of these pre-meetings at a conference center on the Laval University campus. I remember getting lost on the campus with the Cubans. That was interesting because I don't speak any Spanish

and they have halting English. We finally found the conference center after wandering around campus for a while [laughter]. Again, it was one of those things where I actually did work. I just didn't attend an international meeting to play. I actually worked at the meeting. If I'm interested in this, I might as well get involved and do something. I have a little certificate from IFLA about serving on the Standing Committee for so long.

F: As we're talking about organizations, I think one of the big ones that we've touched on a little bit earlier but that I want to return to momentarily is NLM. Because early in your career, and later again through involvement with PubMed Central, you've been involved with NLM programs and staff in lots of different ways. So please talk a little bit about your interaction with those staff and NLM's role in the profession.

H: Well, as background, my salary was actually paid by NLM when I worked at the Regional Medical Library at UCLA. You're a member of the UCLA staff, but in point of fact the money is actually coming from the grant, the contract—the check is written by the regents of the University of California, but the money is actually coming from the National Library of Medicine. So in effect, I was an employee of the National Library of Medicine. If Joe Leiter or Laura Eisenberg or someone who was in training said, "Michael, go there," then of course I did, because Louise was certainly not going to say, "Michael, no, you can't go there." That's the background there. Of course, then I had indexing training at the National Library of Medicine under Thelma Charen.

F: The famous Thelma Charen.

H: The famous Thelma Charen. And she really was quite a character.

And of course the first MEDLINE training course at NLM. And then multiple times when I co-taught with staff at the National Library of Medicine at various places. Then occasionally they would call us back to NLM for updates—kind of continuing education. So a lot of interaction there. I remember meeting Sheldon Kotzin very early on, who had been hired by Joe Leiter. Betsy Humphreys, of course, had been hired by Joe Leiter. I met both of those individuals early on when I was on the RML staff.

The reason I was on the PubMed Central National Advisory Committee was that when I was editor of the *Bulletin*, I wrote an article in favor of this E-biomed concept that the director of the NIH [Harold Varmus] had. It was a favorable editorial. Somebody at NLM read the editorial and they said, "Oh, well, not only is he now president of MLA, but he wrote this favorable editorial. I think he should probably be on the PubMed Central National Advisory Committee." So voila, I get this appointment from the director of the NIH at the time, who was moving on then to Sloan Kettering. NLM is part of the NIH. If the director of the NIH says, "We're going to do this," NLM has to find a way to do it. Evidently, he was able to find some funding, so we were all appointed to the initial committee. This is the original PubMed Central National Advisory Committee. I think it's like a three-year commitment. The first time we met, Don Lindberg and Mary, his wife, and all the members of the newly appointed committee, and all of these technical experts at NLM, and David Lipman, who was kind of the majordomo of the

advisory committee—[the Friends of] the National Library of Medicine paid for this lovely dinner in some restaurant in downtown Bethesda, so we got to know each other a little bit before the meeting started.

My impression of PubMed Central at that time... PubMed Central didn't exist as a computer system at the time. [Editor's note: The free full-text archive of biomedical and life sciences journal literature was launched in February 2000.]

F: Right, it was still in the planning…

H: It was being developed. Of course, they're very clever people at the National Library of Medicine, and eventually they'll get it together.

But the thing that impressed me initially at those meetings was the naïveté of people who thought that these publishers would just rush out to give them their digital content to go into PubMed Central. To me that was awfully naïve. It would be nice if they did that, but why would they? They own the content. Just because the director of the NIH wants to do something, it doesn't mean that Elsevier is going to accommodate him.

I remember the editor of the *Proceedings of the National Academy of Sciences* [Nicholas Cozzarelli] was on the committee, because they had initially been very favorable towards the concept and building the PubMed Central database of digital content. He was on the committee. And the editor of [*Annals of Internal Medicine*, Frank Davidoff], one of the big clinical medicine journals, was on the committee too. I mean, they're big names—a couple of Nobel laureates [Varmus, Joshua Lederberg (who chaired the committee), and Richard Roberts] and so forth—and me. And was there another librarian? Well, James Neal came onto it, but later, like, the second year or something. And then Paula [Kaufman]—she used to be at the University of Illinois at Urbana-Champaign, the university librarian—was appointed, I think kind of in tandem or something. [Editor's note: Librarians James Williams and subsequently Linda Watson and others were also on the committee.] But the naïveté was one thing. And I don't know if you know David Lipman or not.

F: I don't. I know the name.

H: He's very intense, I would say. I think a different person probably would have been slightly better for the chair of that committee, although he's a physician and has great experience and so forth. But he's not the most likeable. He's so intense that he's not the most likeable individual. But he was able to control the Nobel laureates and so forth on the committee, and, most importantly, to be able to—not control, it's not the right word— but deal with the director of the NIH, who was sitting on the committee as well.

I do remember certain things about it: taking the subway with the editor of one of these big journals. He said, "This seems so crazy. What are they thinking?" "Well, that's interesting that you would be thinking that." Then at some point there was a big telephone call with the editor of the *Proceedings of the National Academy of Sciences*

who couldn't come to a face-to-face meeting, but he was on the telephone. The issue was whether PubMed Central would link back to the digital content of the native journal, or if they were going to repurpose the digital content into the archival form, which was essentially a different instance of the journal—not exactly how it was published but a different instance of the journal—probably much better for archival storage, but problematic for the journal publishers. And the editor of the *Proceedings of the National Academy of Sciences* on the phone said, "If you don't allow linking back to the original content of the journal, we won't participate." And then there was dead silence in the boardroom of NLM. David Lipman was like, "Mm..." [laughter]. So those were some early kinds of things.

Then the other interesting aside about that was that there were people who had gone to— David Lipman had gone to the annual meeting of HighWire Press of all the journal editors that meet annually with the university librarian at Stanford to chat about the direction. They would hear about PubMed Central and how the National Library of Medicine wants to create this digital archive. These guys from the PubMed Central committee had gone to the HighWire Press meeting. They come back to the very next meeting of the PubMed Central Advisory Committee, which was held not too far away from the HighWire Press meeting. And they couldn't believe how badly they were treated by HighWire Press. Again, it seemed so naïve that they think they would've been just enveloped with open arms. It didn't happen.

F: They didn't understand the pricing of...

H: They didn't understand the pricing. They didn't understand turf. They didn't understand so many things, because NLM is not a journal publisher. I talked to some people on the side on the staff of NLM. I said, "You know, you're really talking here about at least two different kinds of journals, maybe more than two different kinds of journals." I said, "There are the research journals that you're primarily thinking about and dealing with, and most of the journals that are used at Mayo Clinic are clinical. And these guys don't want you to have any of their content." I said, "The research guys maybe, over time. They don't have any advertising or anything. But the clinical people—I'm not saying it's good, bad, or indifferent; I'm not making a judgment—is that they're against it, and you need to realize it." Well, they didn't. NLM, I don't think initially realized that. They eventually have realized that, and of course their systems had become much better about ingesting the material. I remember David Lipman saying they were getting material from some journals at HighWire Press, and it was corrupt, etc., so they were dealing with some real technical problems. Then they had to work with, I guess, Harvard and some other places to determine what the best archival format for the digital content would be. They got all that worked out eventually. But the meetings of the PubMed Central's initial committee were very, very interesting. And from a little librarian in the corner, it was like, what on earth are these guys about? Don't be so naïve. Gosh.

F: It's interesting though, because NLM has clearly supported the advancement of medical libraries in ways that no other organization could have done, and has made

libraries much more effective, and the services that we've been able to offer users have been incredible. But at the same time NLM is very much described as a bureaucracy that has to be beholden to the peculiar politics of NIH and Washington. And so there are both boons and drawbacks.

H: Right, exactly. But by and large, if you look at the whole continuum, the contributions of NLM have been gargantuan, not only to medical libraries but to the advance of science in general. Just unbelievable—the NCBI, in particular, and that was with David Lipman. So just really quite incredible. Yes, the bureaucracy is part of it and is something that the senior administrators at the NLM have had to learn and deal with. Can you imagine having a thousand employees or something? They're not all librarians. It is running a national library. It's really a physical facility and storage, a gargantuan IT operation. To keep going forward and being visionary, as Don Lindberg has for all these years, I think is just nothing short of extraordinary. Very fine staff for many years. All of these people had their role to play, and they played it exceedingly well, I think.

F: And I think NLM staff has been incredibly creative, as well as willing to buckle down and make those plans and dreams into concrete realities.

H: Right.

F: Very big impact on clinical care, as well as the research side.

H: Yes. The research side, of course, is always preeminent because of the NIH. They are an institute of the NIH. But it was interesting for me to find out that, at least initially—I don't know about now—the digital content that NLM had access to was actually licensed by the NIH Library, not by the NLM. NLM was still, at least in the early stage—I don't know what the situation is now—very print-oriented. That has been quite interesting to see evolve, too. I don't know if that's still true. If you think about it, it's the NIH. There are many institutes. But if you were a publisher, you'd probably want one contract with the NIH for digital content. Even though there are two libraries there, they all report up to Francis [Collins]. I'm not sure how all that works. It would be interesting to talk to Keith Cogdill about that sometime.

F: But it's probably also influenced by history and the past practice of contracting separately with the two of them. I suspect that has always been the case. Interesting. Well, before we wrap up the interview, now that I've exhausted you, is there anything else you would want to talk about that we haven't covered as far as career and activities with MLA or the profession at large?

H: It's just been a wonderful career. It's hard to think that after a cataloging class at the University of Chicago I actually considered dropping out [laughter], but I did—briefly, anyway.

F: Cataloging might inspire that for many reasons.

H: Yes. But luckily for me, I didn't and went on to really enjoy every aspect of it. I don't think I ever had any time when I was not finding something terribly interesting to do, whether it was being editor of the journal or whether it was chairing a committee. There were always many, many things to do; sometimes chairing multiple committees, for instance. That was always a juggling act in order to keep going at Mayo as well as serving MLA extremely well. But I think, in general, to be a volunteer on these committees, whether it's an MLA committee or PubMed Central of the NLM or on the editorial board of *Academic Medicine*, you really have to be committed to the fact that what you're doing is important—not the committee work, necessarily, but the fact that these organizations, these committees, represent something that's important, that what you're doing is making things better. Whether it's creating a topical archive at PubMed Central, or you're organizing a national meeting, it's important, because it's important to the people that are going to be attending, it's important to end users, ultimately, for people to come to MLA and get continuing education. I guess that volunteerism bug that I got at a very early age, it's still here in me. Of course, I'm still chair of the Fellows group of MLA. But even though I've only been here in the desert in Rancho Mirage for two months, I'm starting to look around at volunteer activities.

F: Opportunities.

H: Opportunities that allow me to grow. So, what a great career. It's been quite wonderful.

F: It has been a wonderful career. You've accomplished—and then recognized for—so many things.

H: Very nice to be recognized. Not required to be recognized, but nice to be recognized. For instance, I worked for fifteen years at my church organizing the Dorothy Day House dinners. The Dorothy Day House is a halfway house. And I said to the rector, "Time for me to step down. My sidekick, who'd worked for that organization even longer than I, is retiring from it, and it's time for me to do it too." He said, "Well, thank you very much, Michael, for that, but now you need to find a replacement."

F: For yourself.

H: Right, for myself. I didn't get a plaque, but you had the sense that it was important to do.

F: Yes, very much so.

H: So, nice to get the appreciation, and a cup for being president and so forth, or a bowl for being the Marcia Noyes Award winner. But the real reward is the forty-three-year career that you had such a good time at.

F: You had mentioned a number of individuals along the way. Anybody you want to add as far as a list of people who have most influenced you or people you want to repeat from earlier in the conversation as key individuals?

H: Yes. Of course, parents. Without parents who were supportive—more than supportive—sort of saying, "Well, of course you're going to college; you are of course going to get a job; you will do this; you will read; you will practice." Parents, of course, who were loving.

When I went to UCLA, Louise Darling. But other people—Gloria Werner, Phyllis Mirsky, Betsey Beamish, all the colleagues like Jo Anne Boorkman. The early colleagues were so important, some of whom are still there.

F: As you were learning your way into the profession.

H: Yes. Some of them were not that much older—maybe a couple years older than I— yet they had assumed the culture and they were passing that culture on. At every place that I've worked have been really great people. But I think you remember [the early ones] because you were so young and you were so inexperienced, and you remember those people who helped you. But you've been helped along all the way.

F: It's interesting to me, too, because you were just talking a little bit a minute ago about volunteerism and that that's such an intrinsic part of your nature.

H: It seems to be, but I don't know how I caught the bug.

F: Well, I think probably from your parents and their example.

H: I'm pretty sure, yeah.

F: But it's also evident to me that you have passed that along and you have created organizations where that was also a value that you told your staff they needed to adopt. Are there individuals within the profession that you think you have had a lot of influence on?

 H: Well, I hope that the influence on all the members of the Board of Directors when I served as the president of MLA, which would include M. J. Tooey and many others, would have appreciated a certain style of conducting meetings, a certain transparency type of thing, and perhaps passed that on. Of course, many of them become directors and they have their own style. I think my style is very low-key. It is a 'let's step back and take a look at this' type of thing. How can we have a win-win situation? How can we make sure that everybody is supported in terms of their views? I'm hoping, whether it was the AAHSL board or the MLA board or any of these various committees that I've been chair of, that they would have recognized that, oh, I like that style and I want to do the work of that committee or board because it's worth doing.

There are people who went on to be president that were on the board when I served. Roz Dudden got the Marcia C. Noyes Award and went on to do other things. I helped her, I know, with an initial article that she was writing for the BMLA. I hope those kinds of things are... Again, you don't need a plaque or anything; you just do it. I remember Jon Eldredge was very anxious about publishing his article on his research area and the MLA, and he called and emailed and was worried about what the reviewers would say. You just say, "Jon, it's going to be okay. It's a great article and you can be sure that it needs to see the light of day." I don't know; it's just a huge number of incremental things. Sometimes it's not one individual thing, but it might be things that have occurred over fifteen or twenty years, when you know people and you perhaps served with them and they remember something. I don't know how to do that. It would be presumptuous for me to say, "Oh, they were MLA president because of me." Maybe they assumed some of the attributes of patience and things like that, but I don't know.

F: Overall, how would you like the library community to remember you? Are there any particular accomplishments or contributions that are especially important to you to be remembered by?

H: I remember that question. I think that was one of the harder questions. I did write something about that. Well, my parents, again, have been the greatest generation per Tom Brokaw. In fact, I haven't heard of him for a while. He was on the Board of Trustees of Mayo, but he's been ill, so I'm hoping something bad didn't happen to him. Parents in that generation—people in that generation, parents or not—did what they needed to do in World War II, and they came back and had families. They didn't need to be thanked. I guess I'm in the same mold.

F: I guess you are. Anything you want to say about where you think librarianship, especially medical librarianship, is heading?

H: Well, first of all, we tracked publishing. We're a service bureau, too, so we need to know about publishing. My sense about publishing is that it's like the airlines and other organizations—the pharmaceutical companies. The publishing industry—and I'm talking here mostly about the journal publishing industry, but books, too, I suppose—is becoming smaller and smaller. Fewer and fewer players. And when that happens, it reduces the options for everyone. It potentially doesn't mean, however, that there's going to be less competition, because let's say there are four or five major publishers left in the world—Elsevier and Wiley and a handful of others. They're still going to be highly competitive to obtain that intellectual property.

It doesn't mean, necessarily, that things are going to become more and more expensive, but I think they're going to be pushed to make sure that the digital content is properly archived and that the national libraries—NLM for us, in particular—have major roles to play, maybe even major roles for these huge research libraries, like Columbia and Chicago and so forth. I think the publishers will really need to think through what this landscape, this digital ecology, really is all about, because it involves not just the acquisition of digital content and the ownership of digital content, but it involves the

servicing of that content, which involves automatically, I think—will in the future, involve—libraries.

It could be that the libraries are involved in a digital archiving sense, but it certainly will mean that libraries and librarians are involved in servicing the content. Because it's not just about publishing digital content; the whole point is to advance medicine, advance science, advance civilization. In order to do that, you have to mine that literature, and the librarians are going to be terribly important—are now and in the future are going to be terribly important to that future. Again, it's not just about pricing of the digital content or the problems of making sure that there are a lot of copies of digital content—backups and that sort of thing. It's making sure that the knowledge ultimately can actually be used for betterment, that the clinical problems that are occurring can be quickly answered and solved with digital content. I think librarians have a huge role to play in that.

I do think that the mediated literature searching, which is basically servicing the digital content, will continue to be, and should be, a big role for librarians. The embedded librarians, the informationist notion, I think is a niche kind of situation in which some institutions will be able to afford it, some will not. Where it's implemented, in particular, like National Institutes of Health Library, great. The issue with the embedded librarians is that once they're embedded and doing a great job, what if they leave? Then all that knowledge walks out the door and you're starting over again. That's sort of a common problem.

I do think the libraries as we know them have certainly morphed into less storage centers of print content and have been certainly repurposed to being education and resource centers, and access centers to technology as well as critical access to the librarians who have an exceeding amount of knowledge about these. We've already seen the morphing of libraries. I think print libraries will not totally disappear, but as the print volumes are used less and less, they will hopefully not be discarded but sent to proper storage where they can be accessed if necessary. That was one of the great things about the thousands of copies of something. It was always safe from an archival point of view. But when you have digital content, is it really going to be safe in the future? That is a big problem.

I think it's still a big problem for the national libraries, as well as all the major publishers, to make sure that the digital content is used. But my point is that, who cares about all the digital content if it can't be used for good, if it can't be mined? And that's where the libraries come in—actually assisting the mining of this content and making sure that the content is used where it's going to be most useful, and that advances can occur.

F: Yes. Well, last question: Is there any advice that you would give to people in the field, either people who are new to librarianship or who are further along in their career?

H: Any time that you're asked to volunteer, do so.

F: A very consistent message from you.

H: And from the heart, though.

F: Absolutely.

H: Take advantage of any opportunity, and volunteering really expands your universe.
So do take advantage of that. Be sure that you're supporting your professional
association, which is MLA primarily. Revel in the successes of your colleagues and of
your national library and of MLA. Kind of wishy-washy, but...

F: No, not at all. Thank you so much. This has been a really fascinating conversation
for me. This concludes the interview of Michael Homan on December 18, 2015. Thank
you again for sharing your insights and for hosting our conversation today. I think it
might be appropriate to have a toast to celebrate the conclusion of this.

H: I heartily agree.

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CURRICULUM VITAE
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JOB TITLES: Director of Libraries (May 5, 1994-December 31, 2014); Director of Libraries Emeritus, 2015- ; Consultant, Department of Health Sciences Research, Division of Biomedical Informatics (1994-2014), Emeritus Consultant, 2015- ; Assistant Professor of Biomedical Informatics (June 1995-), Mayo Clinic College of Medicine, Mayo Clinic, Rochester, Minnesota.

The Director of Libraries was responsible for enterprise leadership, planning and evaluation of Mayo Clinic libraries and historical archives and the knowledge management systems, services and traditional and digital assets which supported the information needs of Mayo Clinic employees and students at all Mayo sites. Administrative oversight included the Mayo Digital Library and the central libraries, professional bookstore, and historical archives located at Mayo Clinic in Rochester and the central libraries, patient libraries, historical archives at Mayo Clinic Florida and Mayo Clinic Arizona. The Director of Libraries reported to the Executive Dean for Education and worked closely with an advisory committee consisting of physicians, scientists, nurses, and students.

PREVIOUS JOB RESPONSIBILITIES:

Assistant University Librarian for the Sciences University of California, Irvine (May 1988 to May 1994): The Assistant University Librarian for the Sciences was responsible for planning, directing, and evaluating library services and programs in the sciences and for the management of four science libraries serving the College of Medicine, the School of Biological Sciences, the School of Physical Sciences, and the UCI Medical Center. A primary planning and coordination responsibility was the design, construction and occupancy of the UCI Science Library that consolidated science collections and services into a new consolidated science library. The AUL, Sciences had responsibility for overall UCI Library System management through participation with the University Librarian and other Assistant University Librarians in an administrative group management team and served as Acting University Librarian.

Acting Assistant University Librarian for Humanities and Social Sciences University of California, Irvine (January 1991 to June 1993): The Acting AUL for Humanities and Social Sciences had management responsibility for all public service operations in the UCI Main Library serving the humanities and social sciences and selected science disciplines. Departments managed include circulation, interlibrary loan, document delivery, current periodicals, reserve services, media center, reference, department of special collections, and government publications. The Acting AUL for Humanities and Social Sciences served as an informal liaison to University Advancement for fund development projects involving the University Library, and represented UCI on the Heads of Public Service Council for the University of California library system.

Library Personnel Supervisor University of California, Irvine (September 1991 to January 1994): In the absence of an Assistant University Librarian for Personnel, the AUL for Sciences supervised the Library Personnel office and served as the UCI Library Personnel Officer with responsibility for liaison to Academic Personnel for academic reviews of librarians and to Human Resources for staff personnel.

Head of Information Services and Central Technical Documents, Upjohn Pharmaceutical Company (now Pfizer Pharmaceutical Company), Corporate Technical Library, Kalamazoo, Michigan (April 1979 to May 1988): This position was accountable for management of public services and library systems providing technical information to a multinational pharmaceutical company. Responsibilities encompassed the company's proprietary databases of technical reports, the company's online database of published product literature reports (PIRSU: Product Information Retrieval System/Upjohn), computer literature research and analysis, reference, online training program, technical intelligence, and other public services operations. The Corporate Technical Library was the largest of the company's various libraries and information centers with 20 professionals and 20 support staff headquartered in the Upjohn Research Laboratories.

Head, Information Services Pacific Southwest Regional Medical Library Service (PSRMLS), UCLA Biomedical Library, Los Angeles (March 1974 to February 1979): This position was accountable for managing and provision of services for a regional reference, online training, and online continuing education program for a four state area served by PSRMLS under contract to the National Library of Medicine (NLM). Other responsibilities included editing a newsletter for the Region's online searchers; training, supervising and evaluating professional and support staff; regional online network management for NLM; and, preparation of quarterly and annual statistical and narrative reports.

Regional Medical Library Media Consultant Pacific Southwest Regional Medical Library Service, UCLA Biomedical Library, Los Angeles (August 1974 to February 1979): This position, while unique in its responsibilities, totally overlapped the position described above (Head, Information Services). This position was accountable for planning, evaluating and providing a regional audiovisual reference, workshop, and consulting service to a four state area served by PSRMLS under contract to the National Library of Medicine. Consulting services included assistance with private and federal grant applications for audiovisual services/materials in hospital and university medical libraries.

Information Specialist/MEDLARS Search Analyst, Pacific Southwest Regional Medical Library Service, and UCLA Biomedical Library, Los Angeles (July 1972 to March 1974): This position was accountable for providing current and retrospective online and batch mode searching of the MEDLARS database for UCLA's MEDLARS Search Station serving a four state region under contract to the National Library of Medicine. The position was also accountable for participating in library information programs and workshops aimed at the Region's health professionals; providing a regional reference service; assisting in the UCLA online training classes for MEDLARS; and, construction of current awareness search profiles for batch processing at UCLA's Center for Information Services.

Biomedical Library Intern, UCLA Biomedical Library, Los Angeles (July 1971 to June 1972): This postgraduate internship provided an opportunity to combine formal course work (postmasters) at UCLA with professional work experience in all divisions of the UCLA Biomedical Library. The internship was funded by a USPHS Fellowship for Training in Medical Librarianship through the National Library of Medicine. Specific accomplishments included in-depth searching and indexing experience at UCLA's Brain Information Service and MEDLARS Search Station; and, completion of MEDLARS indexing and search training at the National Library of Medicine.

Research Assistant, Graduate Library School, University of Chicago, (September 1969 to February 1970): This position was accountable for technical literature scanning and other activity associated with Chicago's Experimental Selective Dissemination of Information Project. Experience on the Project provided the laboratory for a required MA thesis: "Measurement of Searcher Learning Rate as a Function of Feedback from Recipient in Selective Dissemination" (1971).

EDUCATION:

Post-Master's Certificate, Graduate Training Program in Medical Librarianship (USPHS Fellowship), Biomedical Library and Graduate School of Library and Information Science, University of California, Los Angeles, 1971-1972.

MA, Graduate Library School, University of Chicago, (USPHS Fellowship), 1971.

BA, Lewis and Clark College, Portland, Oregon, 1969. Major: History
Minors: Chemistry, Biology.

PUBLICATIONS & ADDRESSES:

Publications:

Ellsworth MA, Homan JM, Cimino JJ, Peters SG, Pickering BW, Herasevich V. Point-of-care knowledge-based resource needs of clinicians: a survey from a large academic medical center. Appl Clin Inform 2015 May 6; 6(2):305-17.

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Homan JM. Cost of responding to the drug regulatory environment. Pharmaceutical Manufacturers Association, Information Management Subscription Annual Meeting, April 29, 1986, Richmond, VA.

Homan JM. Downloading update. Pharmaceutical Manufacturers Association, Science Information Subsection 14th Annual Meeting, March 28, 1984, New Orleans, LA.

Homan JM. Electronic data capture. Michigan Database Users Group Annual Conference, November 15, 1983, Ann Arbor, MI.

Homan JM. Training and continuing education: a management perspective. Pharmaceutical Manufacturers Association Science Information Subsection 13th Annual Meeting, May 11-5, 1983, Innisbrook, Tarpon Springs, FL.

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PROFESSIONAL MEMBERSHIPS & ACTIVITIES

American Library Association: Member, 1988+
    Association of College and Research Libraries (ACRL): 1988+
    Library Administration and Management Association (LAMA): 1991+

American Medical Informatics Association, 1998+

Association of Academic Health Sciences Libraries (AAHSL):
    President, 2004-2005
    Institutional Representative, 1988-2014
    Information Management Technology Committee, Member, 1989-1991
    Board of Directors, 1991-1994, 2003-2006
    Charting the Future Task Force, 2002-2003
    NLM/AAHSL Leadership Fellows Program, Mentor 2002-2003, 2007-2008
    AAHSL/MLA Joint Legislative Task Force, Member, 2004-2005 & 2006-2010; Chair, 2006-2008;
    Vice Chair 2009-2010; AAHSL/MLA Healthcare Reform Working Group, Co-Chair, 2009
    Joint AAHSL/Publisher Liaison Task Force, Co-Chair, 2007-2010

California Academic and Research Libraries (CARL): 1988-1994

Coalition for Networked Information: Institutional Representative, 1995-2014

Group on Information Resources (GIR) of the Association of American Medical Colleges: Institutional Representative, 1998-2014

Medical Library Association:
    Marcia C. Noyes Award, 2015
    Carla J. Funk Governmental Relations Award, 2013
    Doe Lecturer, 2009
    MLA Fellow, 2003+
    Past-President, 2001-2002
    President, 2000-2001
    President-Elect, 1999-2000
    Editor, *Bulletin of the Medical Library Association*, October 1996-April 2000
    Managing Editor of Books, 1990-1996
    Task Force on Global Initiatives, Chair, 2003-2005
    World Congress on Fair Use & Copyright (Correcting Course: Rebalancing Copyright, Columbia
        University), MLA Representative: 2004-2005
    Expert Searcher Task Force, Member, 2002-2004
    Centennial Coordinating Committee, Member, 1995-1998
    MLANet Task Force, Member, 1995-1997
    Publications Committee, Member, 1990-2000
    Books Panel, Member, 1990-1996
    Board of Directors, 1986-1989; 1999-2002
    Information Systems Task Force, Chair, 1986-1992
    Committee on Committees, Member, 1986-1989
    Ad Hoc Committee on Appointment of Fellows and Honorary Members, Member
        1986-1989
    Scholarship Committee, Member, 1976-1980; Chair, 1979-1980
    Nominations Committee, Elected Member, 1981-1982 & 1990-1991; Chair, 2001
    Pharmacy and Drug Information Section, Member, 1979-2001, Program Chair,
        1981-1982, Chair 1982-1983, Section Council Representative, 1983-1986;
        Section Council Advisory Committee, Chair, 1984-1986
    Ad Hoc Handbook Advisory Committee, Member, 1989-1996
    Academy of Health Information Professionals, Distinguished Member, 1990+

Journal of the Medical Library Association Editor Search Committee, 2004-2005
Emerging MLA Leaders Task Force, Member, 2009-2011

International Federation of Library Associations (IFLA):
Elected Delegate: Health and Biosciences Section, 2003-2011

Medical Library Group of Southern California and Arizona: President-Elect/Program Chair, 1978-1979; Member, 1971+

Midwest Chapter Medical Library Association, Member 1983-1988; 1994-2015

Special Libraries Association: Member, 1979-2014;
Program Committee, Western Michigan Chapter, 1980;
Director, Western Michigan Chapter, 1983-1985;
Editor, *Sci-Tech News*, Pharmaceutical Division, 1981-1982.

Michigan Database Users Group (MIDBUG) 1979-1988;
Member, Steering Committee, 1979-1981;
Program Chair, 1980-1981;
Chair, 1981-1982.

Health Science Libraries of Minnesota: Member, 1994-2015;
Board of Directors, 1994-1995.

Other Memberships and Activities:
Academic Medicine: The Journal of the Association of American Medical Colleges. Editorial Board: Member, 2001-2014

PubMed Central National Advisory Committee, National Institutes of Health, National Library of Medicine: Member, 2000-2003

Standing Committee for Online Retrieval Education (SCORE), National Library of
Medicine: Member, 1976-1979

Greater Midwest Regional Medical Library Network: Member, Online Update
Committee, 1982-1986; Chair, Program Committee, 1984-1986.

Kentucky, Ohio, Michigan Regional Medical Library (KOMRML): Member,

Participating Library Advisory Committee, University of Michigan, 1980-1982.

Michigan Health Sciences Library Association: Member, 1979-1988.

Consultant: Biographical Directory of Online Professionals, Marquis Who's Who, Inc., 1983.

Pharmaceutical Manufacturers Association Information Management Subsection (formerly Science Information subsection): 1984
Member, Continuing Education Committee, 1982-1984; Chair, 1984;
Member, Published Information Committee, 1985-1987.

TEACHING ACTIVITIES:

Mayo Clinic CTSA and Mayo Graduate School. Responsible Conduct in Research Core 6000. Publication and Copyright in the Electronic Era and Plagiarism, 2007-2014 (guest lecturer).

Mayo Graduate School and Mayo Clinic General Clinical Research Center. Responsible Conduct of Research. What Constitutes Publication in the Electronic Era, 1996-2004 (guest lecturer).

UCLA Fellows Program, School of Library and Information Science. "UCI's New Science Library", July 1993. (guest lecturer).

UCLA School of Library and Information Science, "Corporate Libraries" for the Medical Libraries Course (guest lecturer), 1990.

Medical Library Association continuing education courses (Online Search Optimization; Basic Media Management-Software; Index Medicus and MEDLINE) were taught at various locations in the U.S.   The CE course entitled "Index Medicus and MEDLINE" was presented at the fourth and fifth International Congresses for Medical Librarianship held in Belgrade, Yugoslavia (1980) and Tokyo, Japan (1985) respectively.

Product Information Retrieval System/Upjohn (PIRSU) and MEDLINE online courses, were presented at The Upjohn Company (1979-1988).

Technical resource person for NLM-sponsored online updates for the Kentucky-Ohio-Michigan Regional Medical Library Program, 1981.

Guest speaker. Online search optimization: the cloning of information specialists. National Library of Medicine online update, 1980.

Western Michigan University School of Library Service guest lecturer: MEDLINE/Elhill and Excerpta Medica/Dialog, September 24, 1980; MEDLINE
and Elhill, January 22, 1980.

National Library of Medicine Online Training Classes: Classes were taught at UCLA under contract to the National Library of Medicine and other field training locations throughout the U.S. 1972-1979.