

Oral History Interview with Charles (Chuck) Davis (CD)
Interviewer: Ron Day, Indiana University, Sept. 28, 2014 (RD)

RD: So, Sunday, September 28, 2014. 2:30. Chuck Davis, being interviewed by Ron Day. Chuck, thank you very much.

CD: Oh, it's my pleasure.

RD: So, tell me, first of all. You were born in Tell City, Indiana. [Laughter]

CD: Yes, that was my mother's home and her father was a physician.

RD: Oh.

CD: So I was born in Tell City, but I never lived there.

RD: Oh, you didn't live there. Oh, too bad. I looked it up.

CD: [Laughs] I visited my cousins there, quite often, so I know Tell City. I used to play at the park around the Town Hall.

RD: Oh, so where did you grow up?

CD: Indianapolis.

RD: Oh, did you?

CD: Yes.

RD: So, is that where the medical school was – that you worked?

CD: Yes.

RD: So tell me how did you end up going for your bachelor's degree in chemistry?

CD: Well, I was offered scholarships in history, performance clarinet, and chemistry. It was sort of a no-brainer and I went with chemistry.

RD: Oh, really?

CD: I was already very interested in it. My father was a pioneer in forensic sciences and he ran the Indiana State Police Headquarter's Laboratory.

RD: Oh, really?

CD: Yeah.

RD: So that's how you got into chemistry?

CD: That's right.

RD: Now, I noticed that one – one couldn't help but notice from your CV that your first publication was on marijuana. [Laughter] So, if you had kept in that stream – you'd be famous by now. [Laughter]

CD: Yes. That's my official graduate minor that I – really most of the courses I took in graduate school were in chemistry or were chemistry-related.

RD: I see. So, you were in chemistry. Why don't you start telling us about how you ended up going from chemistry to information science. I know it is a long story, but to just go ahead and talk.

CD: Okay. Well, after I got my bachelor's of science degree in chemistry here at IU I....

RD: Up in Indianapolis.

CD: No, here.

RD: Oh, here in Bloomington?

CD: Yes, here in Bloomington. The medical school connection was in graduate school. Connection in toxicology – that's why I was at the medical school.

RD: Oh, I see.

CD: Yes, I had secured – I had been admitted to graduate school in chemistry at Princeton and MIT and I accepted a teaching assistantship at MIT, but in the meantime, I found out that I got a fellowship to study in Germany for a year. All expenses paid. I applied for it early and was told that I was on a wait list, so it came kind of like a strike out of the blue that summer. And it was an offer I couldn't refuse. It was just too good an opportunity. To not only study in Europe, but to see Europe. I'd never been there. I was 21 years old. [Laughs] Footloose and fancy-free, so my first year of graduate work was in chemistry at the University of Munich. And I enjoyed it thoroughly, although I can't say I learned a lot – my specialty was organic chemistry and I had 57 semester hours in chemistry as an undergraduate, so I was close to a master's equivalent and I exceeded the master's equivalency after I got back here. I never took the degree because I realized that it was a minor towards a Ph.D. it shortened my studying time for the advanced degree, and you're right, it is a long story, but I'll skip over the not-so-interesting parts.

I flirted with – I'd toss one thing in because it's relevant later - I flirted with history and philosophy of science, which was a new program here under Norwood Russell Hanson, who had come here from Yale and founded the department. And that didn't work. I was in the program for about a month before

I realized that it was not my cup of tea. It led to teaching history and philosophy science and perhaps doing research in that, which just didn't appeal to me that much, so I rebounded to toxicology because the state toxicologist was also chair of the toxicology department. That was Dr. Robert Forney who coincidentally was a friend of my father's. He had started this study of marijuana because Indiana is famous for its alcohol studies back in the thirties under Dr. Rollo Harger. Then the breathalyzer came along in the 50s. Actually, it was my dad's idea, but Robert Borckenstein, his colleague in criminalistics, took it and got it developed by people who were into inventions and things like that. Anyway, Dr. Forney said to my dad, "What? There's an organic chemist running loose? [Laughs] We need such a person to work on marijuana."

So that's how I rebounded to toxicology and I did some exploratory work in natural products. That is – we got around 200 pounds of marijuana from the U.S. Treasury Department for research purposes, so as you said, I was very popular among certain circles of my friends [laughs], but nothing came of it. I was entirely too ethical to do anything like that. What I did was extract some of the natural compounds from the weed and tested them on animals – some of the tests at that time. Earlier I also did some synthetic work on the methyl ketone of 1,2,5-thiadiazole - a hard molecule to synthesize. I got about halfway toward synthesizing THC and had a good intermediate. We tested the intermediate on animals as well as the natural product. And that was my first publication, as you mentioned earlier. It was in pharmacology. But I hated working with animals and there was also a political problem in the department at that time between the head of the Pharmacology Department and Dr. Forney in Toxicology. The head of the department wanted me to work for him on carbohydrate metabolism and made life very difficult for me – so difficult in fact that I began looking at other options. That's how I went to Chemical Abstracts Service. I saw an ad in *Chemical & Engineering News* for a chemist who liked foreign language and solving puzzles and things of that sort and I thought, that's intriguing. So I wrote them and they invited me for an interview. They needed an editor at that time for the Organic Index Editing department. And I accepted that job at what was then a very nice salary with excellent benefits. It was a good place to work; it probably still is.

RD: You wrote this article, "Indexing and Index Editing at *Chemical Abstracts* before the Registry System." That's

CD: Right.

RD: That's about your time there.

CD: Yeah. '62 to '65. Three really hard years and that was when they went to ... that was a crucial time – luckily for me, they were going from strictly manual procedures to computer-based procedures. The registry system did not exist – it was being built as I was there, so that was exciting because I got a taste of what it was like with the old hot type methods, which were, as I say in the article, error-prone and tedious. [Laughs] And they required professional chemists – you couldn't pick somebody off the street or somebody with a B.A. in chemistry. They would not be able to hack it, you know, it had to be somebody who knew organic chemicals well enough to name them properly. It was like three years of graduate studies in chemical nomenclature and chemical formula and chemical structure representation. It was just wonderful. I enjoyed it thoroughly. But then I got itchy to get an advanced degree. I had all these credits in graduate school that had got me nothing – no degree whatsoever and that's when I got looking into information science. And at that time, IU had a brand new program in information science and I thought, Terrific, as I was still eligible for in-state tuition fees. [Laughs] At Ohio State, they had nothing like that, and *Chem Abstracts* was headquartered in Columbus – an accident of history because C.J. Crane, the editor, was there. Many people were moaning the fact that ACS [American Chemical Society]–had its headquarters in Washington, D.C. but CAS was in Columbus, Ohio, on the Ohio State campus. OSU had a program in computer science that I looked at. It was all number crunching and they really weren't into anything sophisticated like string manipulation or text retrieval or anything like that. Mind you, this was in the day of the mainframes. We had no mini-computers, let alone microcomputers and PCs, so I was very excited by the program here at IU. A requirement to get in to what I really wanted to do was getting a master's in library science, which I never thought much of doing. [Laughter] But, I've always been interested in the humanities and social sciences and I thought, Why not? So, that's where the MA came from. That's my first graduate degree and that was also at IU. My first IS publication was in the chemical literature. It dealt with punched cards and how to solve a problem in organic chemistry of retrieving keto-enol tautomers.

RD: How did ... when you came here to library and information science to study – was it already called library and information science or was it a different name and how did you – I mean you had had this basically advanced training in indexing and computational techniques. Was the faculty up to that? Or were you quite an advanced ...

CD: That's a very good question. Yes and no, I guess [laughs] is the safe answer to that. The school was the Graduate Library School, which was mimicking the University of Chicago – the first program to adopt a Ph.D. in the field. The faculty at the IU school had just hired two bright-eyed and bushy-tailed young graduates from the Rutgers doctoral program, which was one of the best of the country at that time. I gravitated toward them right away, while getting the benefit of the older faculty in traditional librarianship. I was lucky enough that the teacher who taught cataloging was Ann Painter and she was very receptive to what I was doing for my master's – I did a master's thesis, in fact, on keto-enol tautomers – and how to deal with them. I did that with Dr. Painter. The other faculty member from Rutgers was Peter Hiatt, an interesting new Ph.D. graduate. He had a degree from Colgate in math before that and -- just an aside here – he gave a talk in Indianapolis and the Director of the Public Library there, Harold Sanders, couldn't resist introducing him as Colgate Palmolive Pete. [laughs]. Anyway, he was the one who suggested – my goal at that time was not to get a Ph.D. necessarily, but at least to get the master's and be able to work in the chemical industry, if not academic life. Peter said, “Have you ever considered a doctorate in this field?” I said, “No, I considered doing a doctorate in chemistry, but not in library and information science,” which at that time, was being discussed as a name for the field. We still had the society named the American Documentation Institute and its journal was *American Documentation*. I got looking into it and I thought, well, this is a good idea. As another aside, I was also being hassled by my draft board. [Laughs] They wanted me to go to Vietnam. I had told them, “Look, I've already been deferred on the basis of critical skill and so how about a 2-S deferment,” so that I could get this and they agreed – another sign of the times back then.

RD: 2-S was educational deferment?

CD: 2-S, yes. Before that, I was 2-A at Chem Abstracts. They had trouble finding qualified people in that kind of work and so I was sort of an oddball from the get-go in that respect. I could see the future of information science and that computer technology was in – it was already growing by leaps and bounds. I worked briefly for the Aerospace Research Applications Center at IU – I worked for NASA at this critical time during the 1960s when they were getting ready to go to the moon and that was an eye-opening experience, too. They had online access to databases although most of the things were done in batch load offline with microfilm and microfiche. The objective was to get things from the literature, particularly the governmental literature that might be used as spin-off to business and

industry. That was the function of the centers that were located around the United States and Indiana had ARAC. I got my eyes opened because they had a cathode ray tube that was about seven inches in diameter and they could use telegraph lines to access things at the blinding speed of ten characters per second [laughs]. They used telegraph lines because they had less noise than telephone wires. Back then, they didn't have the nice things we do now. So, that's of minor historical interest, I guess. Another aside for you. And I worked for them for a year and a half and then Peter Hiatt took me over to another center – the ERIC Clearinghouse on Reading. The director of that center said that they had just lost their information science person and they were just getting publications out using information storage and retrieval equipment. He asked Peter if he could think of anybody. Peter dumbly said, “Oh, I can't think of anyone,” and I said, “Ahem” [laughs]. As a result of that, I became Director of Systems for the ERIC Clearinghouse on Reading, which was a fancy title, making me the head of a department of one. I had to do all of the work [laughs] and that also sent me back to the medical center, ironically, which had an IBM 7044 system. The center here was run by physicists and physical chemists and they were interested in number crunching again, so we had CDC equipment. They wanted the highest precision possible, so the upshot was they didn't have any of the software that I really wanted or needed to do my work for the ERIC Clearinghouse, which was really text processing by mainframe computer. I had to write my own programs to do that. As fate would have it, I had taken a course in computational linguistics. It was a graduate course, and they wouldn't let me in because I hadn't had enough linguistics in my background, they thought. The graduate advisor said it would have to be by permission of the instructor, so I walked to the instructor and I gave him my background. As I told him my interests he started smiling and I couldn't figure out what I had done to deserve the smile. It turned out he was a chemist who had just got his Ph.D. in chemistry from MIT [laughs] and had joined forces with Victor Yngve and Noam Chomsky and was really into symbol manipulation and natural language translation. That was somewhat primitive, but forward-looking at that time, so that meant that I had access to and the knowledge of the computing software that was ideal for text processing by mainframe [laughs] and information retrieval; that led the way to my doctoral work, which really did rely – not just on punched cards, but on computers.

RD: So, to clarify –

CD: I may have jumped around too much.

RD: Yeah, I think you jumped around a little bit. So you got your bachelor's degree. You then went on to Chemical Abstracts –

CD: No, I went to Europe, to Germany for a year.

RD: Then you had – then Chemical Abstracts.

CD: Yeah, essentially.

RD: And then you had the NASA....

CD: Wait, wait. I was at Toxicology and then Chem Abstracts.

RD: Then Chem Abstracts and then you went to NASA.

CD: Yeah, that was here on this campus.

RD: Oh, it was on this campus?

CD: Yes, it was a clearinghouse (or information center) for NASA. It was called ARAC. A-R-A-C. Aerospace Research Applications Center. It was one of several applications centers. They had one in Pittsburgh too, called KASC – the Knowledge Availability Science Center, KASC.

RD: And then you went to ERIC?

CD: Yes.

RD: Okay, then you did – that all contributed to your doctorate?

CD: That's right.

RD: I see. So you were doing your doctorate at that time?

CD: That's right.

RD: I see. Did you have to take classes at that time?

CD: Yes, yes. And I was also allowed considerable freedom; hence the course in computational linguistics. They didn't have to be within the school. The school was fairly advanced, but they weren't that advanced just yet. They were hiring faculty who had some background in computers. Clay Shepherd and Allen Pratt were here. Clay's background was primarily in business applications with COBOL and, in fact, he was on my committee and was a lot of fun to talk with – to compare notes with. He was very helpful. Ann Painter continued to be my chief mentor; she was steeped in the lore of documentation, but not information science as we know it now. She was not a computer programmer or anything of that sort. So, I was working and going to school at the same time.

RD: So when you were doing these jobs, were you doing documentary work or computation? Were you

doing both? What type of work?

CD: It was mostly – mostly computer programming.

RD: Oh, I see.

CD: And there were – they had quite a bit of information, but it was not organized and so I suggested doing a KWOC index – keyword out of context-- index for the material. The boss liked that a lot – Larry Summers was his name. He subsequently went to the University of British Columbia in Canada. And I – getting ahead of the story – met him in Canada, too. But, we produced indexes, published several indexes under the ERIC Clearinghouse on Reading – That was the name of the clearinghouse, ERIC/CRIER. The Clearinghouse on Reading was focused on the reading research primarily at the School of Education. This was on a big grant – the clearinghouse – publishing indexes and also retrieving information from the ERIC database, were my responsibility.

RD: I see, so what was your dissertation title?

CD: *An Approach to Automated Vocabulary Control in Indexes of Organic Compounds.*

RD: And were you pleased with it?

CD: I was. As a matter of fact, it started as one of the projects in the course on computational linguistics. I suggested to Ann Painter that this would be a good dissertation topic and she said, “Yes, I agree.” I pointed out the difficulties in indexing these compounds, which could appear in one of two different forms, but they were the same compound. If you looked at the chemical on the shelf, it would be both of these things in sort of resonance hybrid between the two. A proton goes back and forth so sometimes it looks like an alcohol, or depending on the substance a ketone or aldehyde. It's a rather intriguing concept. [Laughs] I was the only kid on my block who understood the implications of that really well and I ended up getting two or three publications out in the chemical literature while I was in school.

RD: Wow, so those were more publications?

CD: Yeah, that's all in the documentation we had too. Some of the history, if I've jumped around too much. This is also in the introduction to a paper from the Chemical Heritage Foundation.

RD: So, because it's hard to remember all this on paper. [Laughter] It's easier when someone tells you and people will be reading this anyway.

CD: Right.

RD: By not reading your dossier, necessarily. Or reading your CV, yeah. So, it was after your doctorate that you then went to Drexel?

CD: That's correct. I'm going to give you another note about my stay here. We had a visit from the headquarters of the American Documentation Institute. They were interested in starting a student chapter. I thought this was a great idea and talked to some students. There were enough – a critical mass of students to start a chapter. Ann Painter was the faculty advisor and we started an ADI chapter – a student chapter, here. And it grew into a professional chapter, which was resurrected, as it existed before that, unbeknownst to me. [Laughs] Eli Lilly chemists and some others had formed an ADI chapter and so that was resurrected, so I was Chairman of the student chapter and then I graduated and became Chairman of the Indiana Chapter of ADI, which later became ASIST.

RD: Now.

CD: Yes, you're right. My first full time job was teaching at Drexel. I was an Assistant Professor in 1969 and was there for two years, teaching.

RD: What did you teach?

CD: I taught Introduction to Information Science and a computer programming course called Text Processing by Computer. I got to pass on some of my expertise about using mainframes. As it happened, during this critical time, they went from to the IBM 360 series and that's highly significant because we moved from a 6-bit byte to an 8-bit byte. With the 6-bit byte, you were limited to uppercase characters and most punctuation marks, so it wasn't very sophisticated. But going to the 8-bit byte really opened the door for things. People at MIT had written a compiler and interpreter for this language. It was based on Chomsky and Yngve's notation to facilitate handling text, words, punctuation, and so forth. I had moved on, and so I had to familiarize myself with the IBM 360. One was available, not from Drexel because they weren't that big, but from the University of Pennsylvania, which was right across the street from Drexel in West Philadelphia. Penn had a University Science Center on which Drexel could piggyback, so we worked on the 360 with the 8-bit byte. It was very nice. And because it was Philadelphia, a hotbed of work in documentation and really, information science, I got to meet Eugene Garfield and other luminaries that I had known about by name, but not in person until I moved to Philadelphia. Another was Herb White, who later became Dean of IU's Graduate Library School and was here for quite a few years. Through Eugene Garfield and Belver

Griffith, one of my colleagues, a research psychologist, I got to know Derek Price (Derek John de Solla Price) while he was visiting Garfield. And as fate would have it, he knew the guy – Norwood Russell Hanson – who founded the History and Philosophy of Science Department here at IU.

RD: Oh, really?

CD: So, I met Price through Eugene Garfield. My first interaction with him was when Price came to give a seminar at Drexel. He was talking about a variety of things I was interested in – mostly historical – he asked if there were any questions. People sat there like lumps on a log and so I couldn't resist saying, “Do you miss Russ Hanson?” Russ Hanson, in the meantime, had flown his airplane – he had flown in World War II in the Pacific Theater and afterward got out and got some money and bought his own Bearcat [laughs] fighter plane, which he piloted for fun until he ran it into a mountain somewhere out in New England. He had been gone for a year or so. My question was kind of impertinent, I suppose, since I hadn't been introduced to Price yet and I'd come up with this blindsiding question and he looked shocked and said, “Yes, yes I do. How did you know Russ Hanson?” That's how we first got acquainted. Later on, I also talked with him when we were in Gene's office, so that's sort of an interesting aside. He was a really nice guy.

RD: How did you end up at Drexel?

CD: [Laughs] I was recruited. I was at an American Library Association meeting in St. Louis and Peter Hiatt was shepherding me around and introducing me to various people. One of the people was the Dean of the school at Drexel and he was looking for someone exactly like me, and so I went for an interview trip and they offered me a job right on the spot.

RD: So it was computation skills, combined with nomenclature? That was very popular.

CD: And the fact that I had a master's degree in library science. The major in library science. I'm the last person to get an MA through the graduate school. [Laughs] It was the first year they offered the MLS and I was a snob, so I took the MA. [Laughs]

RD: So you were there teaching two years at Drexel, right?

CD: Right.

RD: Then you went to Michigan.

CD: I did – the guy who taught special libraries at Michigan realized that they needed somebody to teach Information Science. The library school at Michigan thought they were among the best, so they

committed what I consider a sin of continually hiring their own Ph.D. graduates. It was definitely an inbred program. The Dean's idea of introducing Information Science to the students was to hire somebody from outside the school who could manage to give guest lectures and courses from another department; that did not work very well because these people were mostly computer science or applied mathematics individuals and were a shock for the students – most of whom had been history or English majors. To them it confirmed a complete clash of intellectual cultures, so it didn't work well at all.

RD: The library school up there was very historically oriented?

CD: Very historically oriented.

RD: Following Chicago's school model?

CD: Yes, yes, as best they could and they all saw learning and more and more about less and less as applicable, I think. They were graduating people who were studying the history of a colonial library in the United States from 1750 to 1779 or something like that. It was really a rather narrow focus and so the guy who taught special libraries there met me at either ALA or ADI and we hit it off. He was the one behind recruiting for Michigan. By then, they were in a little bit of trouble, I think, with the Committee on Accreditation, which for once, was ahead of the school. They had a reputation for being very conservative. But in this case, they were not and they faulted the school for not being more forward-looking. As a consequence, they offered me a job as an Associated Professor with tenure, and I found that hard to turn down. At that time my parents were in Indianapolis and in addition were about to retire and move to a home in Michigan. [Laughs] It was their vacation home. Michigan's self image was as an oasis between Berkeley and Harvard. That was not only their image, but that of a lot of other people's, too. It's a very good university and so a combination of factors led me to Michigan, and I taught similar courses there. Introduction of Information Science was a natural – they had to change some of their course listings and they had some existing courses – I've forgotten their names, but one involved documentation; we changed things a bit and I taught that and also a computer programming course slanted toward data processing for libraries. This was somewhat difficult for me because I really was interested in information storage, retrieval, and dissemination. At that time library automation was focused on technical services because of MARC records; my impression was that these people were using business techniques and applying them to cataloging, which I found rather boring. [Laughs] It wasn't forward-looking enough for me, but we did do some work with the MARC records on tape. It

was just a linear list of records designed for COBOL. The people at Library of Congress and the National Library of Medicine were at the forefront of library automation and used COBOL. In the meantime, I had learned PL/I, which was a major mainframe language and a lot more powerful than COBOL. It featured string manipulation functions that lent themselves to information processing much better than COBOL, with its fixed fields and records in a linear sequential fashion. Nevertheless, we did work with that, but my publications at that time reflect my interest in information storage, retrieval, and dissemination.

RD: Can you talk a little bit about that?

CD: One thing in particular I think is interesting. In graduate school I had hit upon the idea of using the Dewey Decimal classification, the second summary of Dewey, as a means of finding out people's interests. Recognizing all of the shortcomings of Dewey, it was still something that was recognized in the field, especially by the patrons of public libraries. So I used a slightly modified second summary of Dewey as a means of developing interest profiles of public library patrons. I thought that they do this sort of thing in special libraries, so why not in public libraries or academic libraries, for that matter? And one of my colleagues here at IU, Bill Studer, who went onto become the Director of Libraries at Ohio State, got his Ph.D. working with MARC records. He developed interest profiles for faculty who were willing to participate here at IU in doing an SDI service – keeping people abreast of what was coming through with the MARC records. It was very popular with the faculty but not with the library's director. That inspired me to look at public libraries because there was an established program in reader's advisory services at some libraries. Even at Indianapolis, which was fairly conservative, they had a program like that. It had been developed after World War I and they had not discontinued it just because of inertia. They had various centers throughout Marion County where they would go and alert people to what might interest them. It was clumsy and old-fashioned, but was still the right idea. Things like that were percolating in my brain and so I used that for a pilot study in public libraries who were willing to cooperate while I was at Ann Arbor. The interesting aside is that I encountered something that I hadn't anticipated. I thought, given my background where people welcomed this sort of service, that it would be popular. I suddenly found that in the public library environment, people were reluctant to let anybody know what their interests were. [Laughs] I figured this out sort of the start of Watergate and the things that led up to Watergate – the flower child era in the late 60s through the early 70s. I was

never a flower child, whatever else I may have been. I was older, more of a silent generation person and it hadn't occurred to me that older people, not just young people, were reluctant to share their interests with anonymous, computer-based files.

RD: Really?

CD: That was very interesting, so I learned something that I hadn't expected from experience.

RD: Can you talk more about your time in Michigan and people at the institution and your relations to other people in the field? In developments of library and information science because when you're going up for tenure, that's the time you make a lot of contacts and you develop social networks.

CD: Yeah, well.

RD: Interests in different areas.

CD: That's true, but as I said, I was hired with tenure, so I didn't have to go through the usual rigamarole. I was already established – pretty well established. I had a good publication track record. And Michigan wasn't the only place interested in me. I had been approached by other schools, too. Can we stop and start again, or is that too hard?

RD: We can keep going. If you want to take a break, we can take a break.

CD: That might be a good idea.

RD: Okay.

RD: So we were left off in Michigan. You rapidly went from Assistant Professor to Associate Professor in two, three years. And you're now at the University of Michigan, one of the finest schools in the country; tell us a little more about there and then how you went from there to the University of Alberta and became Dean up there for three years.

CD: Sure. You asked about colleagues. My principal colleague of interest in Michigan was Fred Kochen – Manfred Kochen – who was an applied mathematician. In fact, he was one of the faculty who came over and put triple integrals on the board [laughs] and terrified students who didn't understand him. We hit it off right away. I glossed over the fact that I started the student chapter of ADI at Drexel [laughter] and that was easy to do.

RD: Now, '69 at that time were they [Drexel] very involved with computational techniques?

CD: They were beginning to, yes. There was still a lot of punched card work; there were edge notched cards, and peekaboo systems. They had a whole laboratory full of those that had been established by

Claire Schultz and Barbara Flood before I got there. And we worked mostly with those curiosities. By then, I thought of them as museum pieces [laughs], but Fred was... Fred Kochen – going back to Michigan was a very nice guy and he also was a friend of Belver Griffith at Drexel. They had collaborated on a number of publications and were good friends. Fred was also chairman of the regular Michigan chapter of ASIS (now ASIST). Now that I think about it, the change from ADI was made in '68, if I'm not mistaken and I applauded that move. I was one of the minority of people who thought they might have put a T on it back then because the acronym would have been better. I remember the librarians were talking about “as is” [laughs]. That annoyed me.

Anyway, Fred was chair of the Michigan chapter and he did it for a year and then I was elected to succeed him. We got together for lunch and I said, “Fred, yours is going to be a hard act to follow.” He looked at me and said, “Chuck, it's not an act.” [laughter] I thought that was very funny. And I found that most of the other the faculty were bemused by me. I was their token information scientist on that faculty and I found that I wasn't able to collaborate with many of them. I befriended some of them, mostly through music because I've always been a serious clarinetist, so I would do music or talk music with them. So, I worked mostly with the students. I found that we had increasingly attracted students who were interested in the technical and theoretical part of our field and I had students coming from computer science. Computer science majors came to my classes and I collaborated with some of them on some of the work I did there. I wouldn't say anything remarkable came out of it, but I got to meet some really super students. One of whom was Debora Shaw [laughs].

RD: She was a student?

CD: She was a student. She was in two of my graduate classes there (we didn't have any undergraduate classes). The school librarians may have had some, I'm not sure about that. But, yes, there were some very good students and that was inspiring. After five years, I was getting frustrated with feeling very much alone in the school in terms of my interests. At an ASIS meeting I met a woman who was one of the – how do I put it?-- middle managers, I guess, at the university library at the University of Alberta. Their school had a one year program that had been founded by Sarah Rebecca Reed, who ironically had been at Indiana before she went there as the Director of that school. Anyway, this woman thought that I might be a good candidate for Director or Dean of the school; she asked me if I would be interested and I said, “Sure, why not?” I had never been to Alberta and didn't know what to expect. I thought it would

be a relatively small town [laughs] when I landed at the airport. As we drove in, I saw the skyline getting bigger and bigger and bigger. And I thought, “Good grief, this is a city. It's a real city.” It was bright, clean and I really liked the university and the people as I talked with them. Among the “non-negotiable demands” I made was that they consider making the position a Deanship rather than Directorship. They said sure. [laughs]

RD: Wow, that was easy.

CD: [laughs] I went in as the Dean of the Faculty of Library Science at the University of Alberta. My boss was Myer Horowitz, who was very, very good. While I was there, one of my principal responsibilities was to help them initiate a two year program that had become fashionable in Canada. I helped them do that and to get it accredited by the American Library Association. Canadian schools didn't – I think still do not — have their own accreditation process, so they thought it would be very helpful to have an American Dean who had been a long time member of ALA and especially ASIS, which was forward-looking and so forth. So it was a good fit. After three years, I came back saying “eh” after some of my sentences [laughs].

RD: Well, did they want to transform the program? Is that why they brought someone of your type of background in? And what was the interest in your particular type of background?

CD: Um, mostly interesting. Yes, they were interested in having someone – a teaching Dean. In my years as Dean, I think I missed only one semester of teaching. I taught as Dean at both Alberta and Illinois, which was the next step in my career. I had a five year contract and after two years, the University of Illinois was looking for a new Dean. Dr. Herbert Goldhor had been in that position for sixteen years and had recently let go of the position and it was available. Unbeknownst to me, there was some sort of collaboration between Alberta and Illinois. It was one of those things one doesn't know about. They were not sister institutions, but there were enough people who knew each other that there was a back channel of information flowing between them. And so, I had been there for about a year and a half when Illinois approached me about being Dean of the school there. Illinois was one of the first four or five schools to offer a doctorate and was very well established and in the top five, possibly the top one [laughs] of all the schools at that time, so I was flattered and interested. However, I felt obligated to Alberta and I told the Illinois people, “Look, I can't leave at this point.” In the first place, it was a five year contract and I would have had to break that, but also I needed to make sure the

new program, with its new information science components, was in place and accepted. Luckily a couple of people at Alberta had science backgrounds and could handle things to help me out with the information science part of the curriculum. And so, after two years, I got that done but I didn't feel comfortable leaving abruptly. Happily, my new boss at Illinois, the Vice Chancellor for Academic Affairs, said they'd hold the position for me.

RD: That's nice.

CD: Really nice. And they appointed a – oh, before I went to Illinois – I found students and others who were willing to collaborate with me. One of my collaborators was Debora Shaw who had gone to Youngstown in Ohio after she got her M.A.L.S. at Michigan. Then I had gone to Alberta, but we were friends and like minded, so we collaborated and published some things together and that was a lot of fun. I found other people I could published with there too. I pursued some of the ideas I had about collection overlap with a special libraries focus with Susan Dingle. She was the head of the Alberta Commission on Alcohol for the provincial government and was very interested in computer-based current awareness service, so we collaborated on some things there too. Anyway, there were people to collaborate with. That said, I don't think that I published anything with any faculty there.

RD: It was a small faculty?

CD: A small faculty, but with a very broad range of responsibilities. It was the only accredited program in the prairie provinces, so we were the center not only for Alberta, but also for Saskatchewan and Manitoba. I actually made trips on a small plane to Saskatoon and to Manitoba. I made guest appearances and we got students from all those places because for a small faculty, we had a major responsibility for an area more sparsely populated than the United States. It was still quite a chunk of geography to cover. [laughter] I also developed contacts with the University of British Columbia, which has a well established program. Before I left Canada, we had talked about establishing a joint doctoral program. Neither school had one and we joked about putting the headquarters somewhere scenic in the Canadian Rocky Mountains. Eventually I left after three years because I couldn't resist the pull of the University of Illinois and the challenges that it posed.

RD: So what were some of the challenges down at Illinois when you got there? What was the interest for you? Why were they interested in you?

CD: They were interested in me partly because of my background, which fit their forward-looking

interests. The initial Chancellor that I met with was a research psychologist, but his successor after one year was a physicist. Both were keen on having someone with a math-science background. Their major problem was a fractious faculty – they didn't get along very well. They were suspicious of newcomers and what they might do. Part of that was that my predecessor had held the position for sixteen years and had developed some unwelcome patterns of administration. He's gone now and I certainly don't want to malign him. He was quite a gentleman and was super in terms of the transition. However, I'll just give you an example of something that they considered inappropriate. One of the female faculty members there was told that she couldn't get a raise because she was married and her husband would bring in the income [laughs]. And even at that time, it was considered somewhat Victorian [laughs]. And as a result of some of his rather old-fashioned views of things – he wasn't misogynistic – he just was not very well regarded by some female members of the faculty, and they constituted about half of the faculty at that time. So, I inherited some angry and suspicious faculty. I won't mention names, but it was a real challenge to make things work there.

RD: How did you do it? What – how did you bring this together?

CD: Well, first of all, by not insisting that everybody speak at faculty meetings whether they had anything to say or not. Also, rather than hold votes about things that were not controversial, to proceed by consensus. That seemed to appeal to them and it reduced tension. When you ask for a vote on each and every thing, you're inviting controversy and butting heads together. I tried to work by achieving consensus even on major items and succeeded pretty well with that. The school was called the School of Library Science at that point and one of the things we wanted to do was introduce information science to the title. That was one of the things I was able to do there, and I was assisted in that by Professor Wilf Lancaster. Professor Lancaster and I hit it off quite well. During my interview it became clear that I was familiar with his writings, and he was glad to have somebody like-minded. He was pretty much the mainstay of information science there, which was good because he handled many of the things I wasn't particularly interested in and let me develop some new courses. One of these, which I had taught at Alberta and was new to Illinois, was research methods. That is something nobody else particularly wanted to teach and I did.

RD: You taught it while you were Dean?

CD: Yes, and also the course in computer programming by using PL/C, which is the online version of

PL/1. I taught those two courses and I don't recall teaching anything else. Wilf Lancaster taught the courses on indexing and abstracting – those were his babies and that was fine. So I was able to lubricate some of the friction right off the bat and do away with some of the practices I thought led to that friction. At that time the school published *Library Trends*, a quarterly journal. They also published occasional papers that were essentially pamphlets too large for a journal article, but not large enough for a book. That was a challenge. They had their own publications office with a Publications Director, and so that took care of itself.

Illinois also had its own research center, which had been established many years before by Dr. Goldhor in collaboration with the fellow who got his doctorate there and became Dean of the School at Drexel, Guy Garrison. The research center problem was finessed by turning it over to Dr. Goldhor [laughs], and he was happy as a clam and did a lot of good work. He was perfect for that because he got along very well with the people at the research center. He was research-oriented and that's what he wanted to do. He had been a director of public libraries before going into academic work and was happy to have that job, especially as he could retain the title of Director of Research while he was there. He was very nice and accommodating.

RD: So, how did you direct the program when you got there? You have this major university--major school--so what did you want to do with it other than calm down the situation?

CD: Well, that was a non-trivial task. I've just discussed that a bit, but the process itself probably took the first two years I was there. It was mostly a matter of talking with the people as individuals. I tried to find out what their real interests were, rather than what they might have been doing and tried to turn them loose on the things that, in terms of teaching and research, really were interesting to them.

RD: That's a great technique.

CD: Well -

RD: [?] people follow it.

CD: It is necessary. You can't go in and just treat them as a group. You have to go to the individuals and get acquainted with them. Not necessarily befriend them. I can't say that I was friends with more than two or three of them, but I felt comfortable talking with most of them. That wasn't always reciprocated – some of the suspicion of having an information science type come in induced fear of change, I think. This was at a time when traditional faculty acknowledged that times were changing,

but often they pooh poohed the new technology because of its limitations at the time. But there were people who could look ahead, and I flatter myself to think I was one of them. Computer use was becoming widespread and the problems associated with online services, for example, were the source of little jokes. They made fun of Project MARC and Intrex at MIT. At Indiana, the long time Director or Dean of Libraries was very close to rejecting anything that was computer-based. He didn't see the future and I remember a seminar – in fact it was a joint seminar where we did have some cooperative ventures. I'm skipping ahead – I shouldn't do that. [Laughter]

RD: You can come back.

CD: At that time, they were making fun of what were really interesting projects at MIT and what they could handle. For example, only a half a dozen people online at the same time and they said “Try to put that in a library environment.” [Laughs] You know? Most of them had no appreciation for how quickly these things would change. The saying was common then that we overestimate what we can do in five years, but underestimate what we can do in ten. It required a certain amount of vision for people to be able to do that. The problems that I had were not different from what other deans and directors were having. One of the pleasures that I had was getting together at AALS – now called ALISE – and having the deans and directors meetings there, so we could commiserate. [Laughs] And this was a major topic: how do you get people to refocus on where things are going as opposed to where we've been all the time.

RD: Really?

CD: Right, how to get them out of their comfort zone, to accept the things that were changing, mostly in terms of technology.

RD: In what years were these?

CD: Okay, these were the late 1960s, followed by my time as Dean at Alberta and Illinois: 1979 to '86. I was a dean for a total of ten years. Three at Alberta and seven at Illinois. I had attempted to introduce PCs and the best PC at that time – believe it or not – was a Radio Shack computer. The Tandy 2000, was really a remarkable machine and I had my staff use it at Illinois. But then the Apple II came out [laughs] and the IBM PC arrived. Unfortunately, this was a time of financial hardship for the university and I had used my “honeymoon” – as you always do when you come into these positions to bargain for and get changes in the infrastructure at Illinois. We were on the top floor of an old brick building on

our campus and it looked like something out of early World War II. Globe lamps hung from the ceiling, the whole place had shabby furniture and old desks. Oh, it was disreputable. Luckily, the guy who held the position open for me was Associate Dean of the Graduate School and he and I became very good friends. We're still in touch, in fact. He was very helpful and he said, Look, you can't have a new dean coming into these quarters – you know, we've got to spruce it up, so the large part of my dowry [laughs] consisted of getting better facilities, including new furniture, painting the walls, improving the lighting, and such – rather basic things. The school couldn't afford many computers and when the Apple IIs came out, everyone wanted to have one of these new toys. Unfortunately, there was no money for them, in the early 80s. In fact, they were asking us to cut back by a certain percentage in our budgets and not giving us extra money to buy microcomputers. That was awkward and the school librarians and the educational media people were coming in to me and telling me that I wasn't being forward enough. [Laughs]

RD: Really? Usually, they're not known – I mean – special libraries people who have been known to be technological people.

CD: That's right, in this case, it was the school library people.

RD: Why is that?

CD: The Apple IIe. Yeah, and it just came at that time when I didn't have any money to splurge on them or anybody else, so that was a sore point. They think deans can do anything and work wonders but it's not so. Everybody has a boss. [Laughs] It goes up the chain. So that was a source of friction I hadn't anticipated. I was all for having a computer on every desk if I could have, but it turns out that probably was a blessing in disguise because of the rapid change of technology. The Apple IIe was yesterday's news before I was done deaning. [Laughs] And I was getting tired of deaning at that point too. I had already seen that they had a really good early retirement program and I was thinking about taking that and going somewhere else [laughs]. In fact, it was possible to retire at age 55 with full benefits. It was also a critical part of my life. A committee that was hiring new faculty for our school had invited Debora Shaw to consider a position as an assistant professor. She accepted the position and I said, Ralf! I was caught by surprise. I knew she was coming to visit, but I didn't know the committee would be so enthusiastic about her. She was hired and one thing led to another. [Laughs] And after a couple of years of her being there as an assistant professor which she didn't like very much – she didn't

like Illinois – it was even farther away from her family [laughs] than Michigan. We became a serious couple and Indiana made her an offer she couldn't refuse, and I followed her over to Bloomington and commuted for five years until I could take early retirement.

RD: I see.

CD: And I taught from 1988 to 1993, accepting their generous benefits and becoming Professor Emeritus.

RD: That's an hour-two hour commute. I mean for people around there.

CD: It's more like three and a half hours. Trust me, I know every route between Urbana-Champaign and Bloomington, including the back woods. And when it snowed, you had no choice but to take the interstate. Take 37 or 67 up to 74 and across that way and your three hour drive becomes a four hour drive with traffic and weather. It was a chore, but the new dean, my replacement was also very accommodating [laughs] and she agreed to an arrangement where I could go half-time and teach two classes on each of two days. I could stay overnight and teach two classes back to back like that, so it wasn't too much of a chore. By then I was making a fair amount of money, which was a source of friction. Illinois was very good to its administrators and not always so good with their faculty – through no fault of mine. I had no control over my own salary but some (not much) control over faculty salaries. I was given a package and had to allocate it to the faculty and I did the best I could.

Resentment was inevitable because I was paid more than they thought I was worth probably [laughs]. I had gone half-time to facilitate my commute, and half of my salary was a non-trivial amount of money, which the new dean welcomed, and so that was a happy arrangement. I came over here and, as a visiting scholar, I taught research methods here.

RD: And that was under – who? And that was under Blaise at that time?

CD: Yes, that was under Blaise, but initially Herb was still here and -

RD: Herbert White?

CD: Herbert White, yes, thanks. Eventually, I would go to meetings and people would say “So, you're a visiting scholar. How long are you going to be there?” [Laughter] The title implied that I was just here today and gone tomorrow and I said no, that's not the way it works. Eventually I got my current title of senior fellow.

RD: You married Ralf.

CD: Yes, I married Ralf. We got hitched and I had to explain various things. First with the name Ralf Shaw – we got a lot of grief about that because of the original Ralph Shaw - the long-time dean at Rutgers. It turns out that Ralf's grandfather was head librarian at Swarthmore College and it turns out that he taught a course that the original Ralph Shaw took and that got him hooked on librarianship [Laughs] and documentation and eventually he went onto become the dean at Rutgers.

RD: Ralf comes from her kid brother or something?

CD: Yeah, it is just coincidental that it's spelled differently. It comes from a TV show from the early '60s. It was the Smothers Brothers' first attempt at a TV show. It was a wacky thing that they did as little kids - her brother and two sisters, each of whom adopted the name of a character in this show.

RD: I see.

CD: So it was Ralf, Nige, Smothers, and Jolly. [Laughs]

RD: Good thing, she took Ralf.

CD: [Laughs] It worked out nicely. And after the original Ralph Shaw passed away, my Ralf had occasion to call Gene Garfield whose secretary said, It's a call from Ralf Shaw. [Laughs] He said, I thought I was getting a call from the beyond. [Laughter] So, it's kind of a funny thing, and after Blaise got here we had a good time getting acquainted and he was instrumental in helping me find a more appropriate title – Senior Fellow, which implies a little more permanence than Visiting Scholar. It means getting faculty perks, but I get paid only when I teach, which I try to avoid. I have given guest lectures, most recently about chemical structure representation and nomenclature. We are all now part of the informatics school program. I'm maintaining a website on chemical nomenclature.

RD: Oh, do you?

CD: As part of my contribution. And I'm thinking about writing a book on it based on the website, so that each can reference the other. [Laughs]

RD: It's a complex and...

CD: It turns out to be one of the hardest things to do for chemistry majors and non-majors: pre-med or pre-dentistry. The transition from general chemistry and inorganic chemistry to organic is a major shift because you're used to dealing with things in aqueous solution and salts and things of that sort. Then you suddenly get into covalent bonds with carbon and it's a major change conceptually – in terms of the actual chemistry involved. Equally serious is how to name the things. We do have computer-based

systems where you can search by structure, but you still have to call them something when you're giving a lecture or want to talk to your colleagues. On my website on chemical nomenclature I say that you often need to be able to name a partial instead of a whole molecule to get across your point and that systematic nomenclature is far superior to pointing and grunting.

RD: I found your paper on – I was reading your paper on chemical abstracts for the registry system very interesting. The argument that or the fact that you presented that naming is a problem because of different companies, I guess formulating the chemicals? And then coming up with the name and problems, also, patents are obviously – you said the lawyers are trying to name the same thing different ways or something.

CD: Right and this is one of the things I considered, getting a law degree and going into patent work because you have to have a science background in order to do things properly. Most people who go into law come from social or political science backgrounds or are interested in politics and not in the scientific literature, and that's one problem. The other problem is that the companies who develop the drugs or pharmaceuticals don't want to share the information. They consider it proprietary, so they will come up with a name like Green Oil 17 or something like that [laughs] in their published papers. They may reveal parts of a molecule's structure, but they put in Rs and ARs and things like this to beg the question of what is being attached to a ring structure, for example. So naming compounds is very important, both to converse knowledgeably with your colleagues and to name things when you publish papers about them. Only two systems are permitted: the Chemical Abstracts System and the International Union of Pure and Applied Chemistry System, which are similar, but not identical. Major journals accept one or the other. You must publish as a research chemist, so there are a lot of reasons why nomenclature is important. I'm also interested in it because of some unique problems: aromaticity and tautomerism are examples.

RD: Can I ask you a little bit about your interactions with ASIS&T – since this is sponsored by ASIS&T?

CD: Sure.

RD: What has been your involvement with the organization?

CD: Well -

RD: We mostly covered your academic work and publications.

CD: It's interesting, when I was a kid, my folks knew I was interested in science and they encouraged that. My dad was a zoology major here and my mother liked botany. She was the daughter of a physician. They met on campus here. I wasn't born at Bloomington, I was conceived here. [Laughs] They got married during the Depression and I'm a late Depression baby [laughs]. After a couple of years, I came along and when I was a kid, my mother subscribed to *Science Service*, which was run by Watson Davis, one of the founders of ADI. *Science Service* at that time published *Science Newsletter*, now called *Science News*. There was also a monthly or bi-monthly – I can no longer remember which – program where they sent out things in blue and gold packages to interest kids. Often it was something like a non-precious gem or quartz or maybe a copper sulphate crystal or something like that. There was an explanation of what it was and where it came from and how it fit into the larger picture of chemistry or physics or what-have-you. And so I had an early connection with ADI through Watson Davis's *Science Service* out of Washington, DC. And then, as fate would have it, my mother went into librarianship – something she had always wanted to do. She worked in the medical school library at Indianapolis for a while and suggested that I go into librarianship when I was at odd ends in between graduate programs. I turned my nose at that and said no, no, no [laughs], why would I do that? Because I had a stereotypical notion of what a librarian did, although I had had good experiences in libraries, so I don't know why I should have been so reluctant. Later she went into the Indianapolis-Marion County Public Library System, and after a while she reminded me about the library school here. When I made that transition, it dawned on me that I had been silly not to embrace it earlier. I was instrumental in starting the ADI student chapter here and already knew about it. At Chem Abstracts was where I learned really, seriously, about ADI and that was in 1962 because the people there were very much into – my bosses were very much into abstracting, indexing, and therefore ADI and microfilm and microfiche. When I first got there, they had tabulating equipment only, like card sorters and collating machines and all that. They had no computers at all until about the year or two before I left and then they got their own big computer system. Anyway, I joined ADI. At that time, it was possible to become a member of the chapter without joining national and so I was a member of the Central Ohio Chapter of ADI for three years before I finally joined as a national member when I came here as a student. That said, I was a full-time member, not a student member, and stayed a full-time member throughout graduate school here and then of course, Drexel. I served a year as treasurer of the Delaware Valley

Chapter of ADI. We did many things jointly with the Potomac Valley Chapter because it was a relatively short drive away and I got to know some of the old timers that way. Many of these people are still kicking. Ben-Ami Lipetz, who was a librarian at Yale, very much into documentation, considered himself a documentalist, I believe. I mentioned Gene Garfield and Derek Price already. Guy Garrison was the dean at Drexel. So all of these things kind of coalesce over time in terms of my background and my experiences. It's very hard to do a very completely linear, chronological presentation of what happened to me. Art Elias was the long time editor of *American Documentation* from 1950 to God knows when. I met Herb White at some point in Philadelphia [laughs] in fact, I was at Michigan when Herb called to tell me that Indiana offered him the job [laughter] as the dean of the school here. He said, "would that be a good move for me? Is that a good place?" I said, "Sure, I graduated from there and they're very good. I think they would welcome you" and he credited me later for help steering him and his wife for coming here to Bloomington. They enjoyed it, as many people from the east coast do, once they're here in Bloomington, they realized its advantages. Getting world class music for a fraction of the price what it costs in New York or Philadelphia. So, let's see. Who are some of the other people? I may need another break. I don't know.

A: You want to take another break?

CD: Yeah, let's take another break.

RD: OK, Chuck, so you have some books for us?

CD: Yeah, one thing I forgot to mention that the whole Michigan faculty did approve of my publishing a book. In fact, I published a couple of books while I was there. One was this little red book, *Illustrative Computer Programming for Libraries*, which I did as a sole author. I was very proud of that. It was a major portion of the course I taught on data processing for libraries. I mentioned that I chaired the Michigan chapter of ASIS and we'd started a student chapter. After a while I discovered that my students were calling the book "The Little Red Book of Chairman Davis."

RD: Yes, it is a little red book, isn't it?

CD: A little red book, with a reference to Mao Zedong. The book went on to a second edition, on which I collaborated with my friend Jerry Lundeen. He was at the University of Hawaii, then moved to the University of Tennessee following his wife Carol Tenopir. Later on, with the help of the aforementioned Debora Shaw, we did a follow-up, *Pascal Programming for Libraries*. That's the last

computer language I would claim any working familiarity with. The other book I published early on was *Guide to Information Science* with my friend Jim Rush, who is also a past president of ASIS, and at that time was a fellow refugee from the Chemical Abstracts Service. He was my mentor. He had been at CA six weeks when I arrived, so he was put in charge of showing me around and teaching me how to do things. And he learned as much as I did, I think, during that period. We got to be close friends and eventually published a book. We said there's got to be a better way of pulling all this stuff together, and we collaborated on *Guide to Information Science*, which was quite popular. In fact, it became popular enough that we begged the publisher, Greenwood Press, to do a paperback edition. They said, "We don't do textbooks." And I said, "Oh, but you are interested in sales, aren't you?" And they finally acquiesced and did a paperback version, which was translated into Chinese. Jim and I also collaborated on an earlier book, on which *Guide* was based: *Information Retrieval and Documentation of Chemistry*.

RD: That's very helpful

CD: The chemistry book was far more popular and was translated into Japanese. So, those are things that I'm proud of.

RD: And the Chinese volume, was that in Taiwan or the mainland?

CD: Yes, that was in Taiwan, but it's also been used on the mainland.

RD: Really?

CD: Ye, my brother-in-law is Chinese American and I asked him to look at it to make sure it didn't have any political slant to it and he said he couldn't detect any. So it has been used one way or another. It's probably pirated on the mainland.

RD: [inaudible]

CD: It might be more famous than I know. Regrettably, I do not read or write Chinese. And these are the old characters, not the modern abbreviated ones that are used on the mainland.

RD: So you and your wife Ralf now have an electronic introduction?

CD: We do.

RD: A collaborative work?

CD: Yes, it's a collaborative work, and we're co-editors of what we've called *An Introduction to Information Science and Technology*. There are several chapters of it that we've farmed out to people

who are specialists, if not experts, in the various areas. Then we honed down the drafts to something more manageable. It's an ASIST publication in cooperation with Information Today, and the understanding is that after it's been on the air for a while, for a few years, we will publish another book that is another slice in time. It's also out as a paperback, this original slice version. And we've got enough feedback now that we think we can improve on it considerably for another edition in a couple of years. Probably about a couple of years. A year or two.

RD: Excellent.

CD: It's sort of the best of both worlds. You can access it online or in print. I like books. I like the physical object. It's something you can tote around and refer to without having to go online. I will use it to refresh my memory on people who I encountered back in the day. Oh, I'd be remiss if I didn't mention Dale Baker, another past president of ASIS who was director of the Chemical Abstracts Service. I first met him in '62. He received the Award of Merit in 1982 when I was president of the society, '82 and '83. I remember sitting next to him at the head table and said, "I can't believe it's been 20 years since I met you." He just laughed. I met Abe Bookstein and Ted Brandhorst. Also Robert Fugmann from Germany. Chuck Goldstein. I had met Steve Harter here at IU. I'm looking for the older ones. Ah, Phyllis Richmond, Gerard Salton, Elaine Svenonius, Don Swanson. These are people that I either met or was associated with, or affiliated with, because of ASIS. Victor Yngve I mentioned before. He was an unusual guy. He moved from applied mathematics and physics, into linguistics, computational linguistics, and moved from MIT to the University of Chicago. Ralf and I were lucky enough to be able to name a professorship in his honor, a professorship in information science. He was a remarkable man. I wouldn't say he had an encyclopedic mind, but he was certainly very well-read and knowledgeable. He died a couple of years ago after losing his eyesight to macular degeneration. His latest work, to show how far off-field he moved, was on non-verbal communication, sign language and so forth. And body language, not just sign language, but the things that we miss on email. You know, like the sense of humor, the facial expressions, and so forth. The last I heard, he was working in that area. Marshal Yovits at Ohio State. Even though I did not go there to work, he offered me a job in computer science after I got my PhD. Bernie Fry was the dean here at that time. He advised me against it. He said, "Only if you want to work very hard." I thought that was amazing. I think Bernie never wrote a program in his life, but he thought it would be hard.

RD: Well they are.

CD: Yeah, it's challenging. That's a term we use in music when we're asked to play something that's really hard. We call it challenging. We never admit we can't do it.

RD: There you go. That's the spirit.

CD: OK, prompt me.

RD: So let's maybe conclude this by asking: you have a long background experience that spans kind of the documentalists period into the computer science period and then within library schools, so it's a rich intersection over three fields, or two and a half, three fields. What have you seen over this period, what do you see coming up, what do you... kind of give me overall, kind of looking back and forward impressions?

CD: OK.

RD: Institutionally and also in terms of technology and in terms of profession.

CD: Frankly, I think Indiana University is a good example of what I envisioned in the 1960s. At the time librarians and library faculty, in particular, viewed information science as a subset of librarianship. And I said, "I think it's the other way around if you think more broadly about things." During my professional lifetime I have seen the move, first of all, toward library and information science. Then eventually it sort of settled on informatics, which is a nice neologism, a nice new word that encompasses a lot of the things, a lot of the areas that have so much in common, and should, in fact, have people that interact and talk with one another. Yes, there is such a thing as library science. I mentioned that we changed the name at Illinois, but that was not without difficulty. It had to go to the general faculty for approval. They even objected to the word science. And I pointed out that it came from the Latin "scientia," which meant knowledge. Wilf Lancaster and I had to argue for the better part of half an hour before we persuaded them to accept our name change because we both saw this as the way the field was moving. Library AND Information Science, not Library OR Information Science. I saw this coalescence take place and now we see the School of Informatics here, which is, if anything, perhaps too broad. But there's clearly a lot in common with library science, computer science, and I think journalism as well. Journalism is essentially contemporary history. Probably the historians would hate me for saying that because they want the dust to settle for 50 or 100 years before they write about anything. The techniques that are involved, I think, range from the humanities to applied mathematics.

And it pleases me to see a school that has, at least nominally, these groups in one... a school that encompasses all these formerly distinct intellectual and professional disciplines.

That's another thing we haven't talked about: professional vs. academic. I guess one of the things that I would hate to see leave library science is the applied aspect of it. There are some nitty-gritty details of running a library that you need to know, and they're not necessarily things you learn while getting an MBA, for example. There are things that they do at the MBA that I would like to see in the MLS programs now and that clearly are available in a wide-ranging school like Informatics. Research methods, for example. Initially I had some trouble selling this, not just to the faculty, but to the students. They said, "Why would I be interested in that?" And I found that the useful ploy was to say that the tools that you use for research, particularly statistical tools, are virtually identical to those that you would use in management and administration, if you're thoughtful about collecting data on anything, whether it's how often books circulate or what people are interested in reading. The same statistical techniques that are used in businesses are used in any social science at the doctoral level. Anyway, my point is that once they got it in their heads that there might be some practical application for it then they were able to swallow the fact that maybe this is useful in research as well. Get them thinking about something that's not just the quotidian practices of work in a library, for example. Wow, that branched out in a hurry, didn't it? Anyway, I've always thought that librarianship was a subset of information science, an applied subset of information science, broadly interpreted.

As I said before, I was very pleased with the name change to information science and technology – for ASIST – which was finally pushed through by Gene Garfield during his presidency. I think the people who turned it down originally were still under the spell of Vannevar Bush, who worried that Americans were so good at invention and technology that they would forget about basic research. I think that's where they were coming from when they turned down technology back in '68 when they had a chance to broaden it, to include technology. They thought it was just a little too tied to the earth, too tied to what I call the quotidian practices of wherever you worked, whether in a library or an information center.

So, by and large, I'm pleased with the way things have developed, both academically and professionally. I would not like to see appreciation for the toys and their use run roughshod over the humanistic elements of librarianship or any social science field that deals with the humanities. I bring

this up partly because I'm married to someone who's very interested in the practices of people in the humanities. Her degree from the University of Michigan is in the history of ideas, and my impression over the years being married to her is that this is, well, fairly broadly based and concentrated a lot on the humanities, perhaps the social sciences. Not to the exclusion of the physical sciences, but it got the short end of the stick in whatever program she had. So her orientation is more toward the humanities than mine, although I retain an interest in that. It always annoys me that people assume when you declare yourself to be one thing that you cannot also be something else as well.

RD: Well, you're a musician and you still practice German, so no one could accuse you of that.

CD: In fact, we're going to Germany at the end of November, so I get a chance to speak to the natives again.

RD: Good, good. Do you have any last thoughts then?

CD: Oh, wow. I'll think of a thousand things once you've shut this off.

RD: Well, we can always add more later.

CD: Ok, well I wanted to be sure to give credit to my various co-authors over the years, particularly Jim Rush. He's now happily retired in Philadelphia. Before he left *Chemical Abstracts*, he was in research there and he took his knowledge of that to OCLC and went into research and development for them. Eventually, from there he moved on to the PALINET, the Pennsylvania Library Network, and really worked hard on that until he retired a few years ago. Regrettably, I seldom see or hear from him these days. But back in the day we were quite a collaboration. And I mentioned Jerry Lundeen. He's at Tennessee. And I'm married to the other one, so we can't forget her. And that's probably a wrap for now. I'll think of other people and other connections, I'm sure, but I'll try to put them together in a coherent way and perhaps email you. If you think it's worth getting together again, we can do that.

RD: Yeah, we can get together again. Let me turn this off.

END OF INTERVIEW