B: This is an interview with Henry Walker from Grinnell College, in Grinnell, Iowa, conducted by Barbara Boucher Owens. This interview is being recorded on the 9th of March, 2013, at Denver, Colorado, the United States of America. It is part of the Computing Educators Oral History Project. Did we get and pronounce your name correctly?

H: Oh, yes.

B: Good. OK. As we start this, we are going to go way back.

H: OK.

B: So I want you to tell us a little bit about your parents. What did they do for a living, what kind of educations did they have?
H: Well, actually, let me go back a little bit further.

B: OK.

H: On my father’s side, my grandfather was born in Bombay, India, and he went to Victoria Jubilee School in Bombay for high school and then came to this country to study engineering at Case Western Reserve — well, Case Institute, I think is what it was called at the time.

My [paternal] grandmother, Flora MacKay, was from Cleveland and so they met after my grandfather had come over from India. He studied engineering at Case, and she was a music person. So then they were married and they went to Schenectady, New York, which was where General Electric was, and he worked for General Electric. She taught music and played organ at the local Episcopal Church and that sort of thing.

So my father was born in Schenectady. He went to Union College, the local school, because that’s what seemed appropriate at the time. He went on to what was called Albany Teachers’ College for his Master’s work. It is now Albany State, or SUNY Albany.

My mother … I don’t know as much about her family. My [maternal] grandfather … he was working in — I think, in commercial endeavors, I’m not sure what — in Schenectady; and Maude, my grandmother, and he were married. They had one child, my mother, Alice Mary …. also Schenectady. So my parents were married in 1936. They both graduated — Dad from Union College. My mother attended Albany State and was certified to teach in New York state in both business and math.

B: What was your dad studying?

H: He studied chemistry. And right after college — this was in the middle of the Depression — so my mother was one of very few that got a teaching offer at all, and she taught in Remsen, New York, in a little school out by Syracuse or Utica, way out in the western part of the state. She taught there for a couple of years in a very small rural school. But that’s … she taught both business and then she taught math.

My parents had known each other through high school. So they were married in 1936. My father was working for [Bender] Laboratory in the Schenectady area and then took a job for … with General Electric in Pittsfield, Massachusetts.

[4:27]

And somewhere in there, I am not really sure just the timing, my [maternal] grandfather had passed away. So when I came around, which was 1947, my parents were living in … well, near Pittsfield. The house was in Lenox but the backyard was in Stockbridge. The image that I have of that was there’s this large backyard which, at least for a two- or three-year-old, was … had these huge flowers coming up over your head or at least up to head level. I’ve gone back since and clearly the perspective of a child is different from that of an adult.
I was there; my father was working for GE Pittsfield and my [maternal] grandma was living with us. So as far back as I can remember, [my] grandma was around and was involved with childcare and involved with a variety of those kinds of things that a grandmother would typically be doing. Apparently I couldn’t say Maude very well when I was two or whatever, so all the way through I called her Mamie.

When I was 4 ½ [years old] my father changed jobs, and we went to North Jersey, we lived in Caldwell, which is in the northern part. My father worked in [Roseland] at Resistoflex Corporation, I believe. So we were there through my junior high and high school ... or through my grade school and junior high, excuse me. I was in the local schools. And ... in ... it was highly typical elementary school where you had just one class — you’re just with the class and that’s what you did. But you did have band, or you had art, those kinds of things. Then in junior high there were several different classes and the classes sort of moved together. But I remember one of the extra-curricular things I would do would be to be in the marching band, which I very much enjoyed. And I enjoyed singing.

B: What did you play in the marching band?

H: I played trumpet. My father was a trumpeter and ... well, in third grade, I really wanted to learn how to play trumpet. My parents said I had to have a year of piano first. My Grandma Walker was — as I had already mentioned — had been an organist and gave music lessons and that kind of thing. She was very good at church organ [and piano], that kind of stuff. My father had [an extensive music background] and my mother had a little bit of piano, not a lot. But just in terms of having a general sense of how to read music and all that sort of stuff.

So I took a year of piano lessons. And thinking of that now as a teacher, I was probably not the sort of student that the music teacher would have preferred. I learned, sort of, how to [play], but my heart was just not in it.

Also in third grade the local Episcopal Church had a boys choir, so I was actually part of a paid boys choir. I got, I think, 50 cents a month. Which for me was a huge amount — I never spent any money, so I amassed what, at the time, seemed like a lot of money. Because there was income and there was no outgo, so there I was.

So I was involved with music, marching band, and chorus, and then the church choir. One of the things in eighth grade, which ...

B: Let’s go back to elementary school. What were the academic subjects you liked? And are there particular teachers you remember? We’ve heard about band.

H: Well, it’s interesting. I don’t remember a lot about very many teachers except a sixth-grade teacher who was basically unreasonable — in various social studies projects in particular. Mr. Gelernter. Really this was his first time teaching the sixth grade, and he had no concept, in retrospect. We had these different units on different areas of the country and they were ... he wanted the sixth graders to write probably 20 or 30 page reports on each of these areas. I remember one of the units was on the Civil War. [Years later, my mother would remember
talking to another parent;] they would ask, “How’s the Civil War?” The response would be “We’re still fighting it.”

[10:03]

B: [laughing]

H: But I don’t remember a whole lot — I remember doing band stuff; I remember doing that kind of thing. I always enjoyed math and I enjoyed science. I was certainly interested in science kinds of things.

In third grade, my life ambition was to become a carpenter. I really enjoyed woodworking and that kind of thing. Building things.

My mother had been a math teacher, so I certainly got some inspiration of solving problems and doing those kinds of intellectual challenges and such. I liked to do puzzles and those kinds of things in the beginning. But I don’t remember a lot about particular teachers in elementary school, certainly.

B: OK. Well, then you had started beyond 8th grade.

H: In junior high, we did have a few electives. One of the electives I took was Latin, where I really learned a bit about … well, grammar and that kind of thing. I had known a certain amount before, but you had to know a whole lot more about some of those basic constructs [of grammar]. That was sort of the basic motivation. My parents had both had Latin as part of their traditional education years before and that seemed like the natural thing. So I had Latin in both seventh grade and eighth grade.

I think in retrospect there probably was a bit of an accelerated math program. Seventh-grade math I really liked because it was very challenging to me. I could think about different ways of approaching problems. That was just really fun. There was a sense of real excitement there.

Eighth grade was a much more traditional, formula-oriented thing, which didn’t resonate with me much at all. I remember, for example, when we were talking about percentages in eighth grade, we were taught that there were three formulas for percentage. One formula was interest equals rate times principal; the second formula was principal equals …

B: [laughing]

H: … and so forth. I remember my mother … and I had had a terrible time. I still remember to this day … percentage is “is over of” — “what percentage of this is that”. That was one of those things that you just learned. But at one point I was getting frustrated with this and my mother, even in eighth grade, took me aside and said, “Look. Here’s the formula. You know enough algebra that you can solve for whatever variable you want.” That made a huge difference. So that was not a good experience.
But at the end of eighth grade, my father changed jobs; we went up and … my parents moved to Concord, Massachusetts. Before I go there, I should mention a couple of more things. First of all, music was one of those things that stood out. I was in the marching band. The high school marching band did allow seventh and eight graders to be part of it, so I was doing that.

But then being outside New York City, they had a program with the Metropolitan Opera. So in eighth grade you studied an opera. Il Trovatore was the one that we did. And then, after you studied that and you did some … you passed some tests, they took pretty much the whole eighth grade class in to see the Met, which was really pretty nifty.

In terms of my singing, prior to eighth grade, I was probably the highest of the boy sopranos. I easily could get a high C. It was not a problem. But then the church realized that there was this issue with boys at that age — with voices changing, they never quite knew what was going to happen. So rather than being in the choir, I became an acolyte [both laughing]. So that’s what that was.

[14:51]

So moving along, then my parents moved to Concord, Massachusetts. And clearly the reason … an important reason they decided to move there was because of the high school system. Concord-Carlisle High School had a terrific reputation, it was a wonderful thing for me to go to.

When we moved in, I don’t know what the arrangements were, but I do know that before ninth grade, after we had just moved up there, my parents talked with the math teacher, Norton Levy was his name, and he tried accelerating a few selected students to get a year ahead in math. The first time I talked with him — and I had done some work and such as homework — and that I think probably didn’t go just real well, but I kept at it. By the end of the summer before ninth grade I was doing fine, meeting the higher expectations from what I’d been used to.

So I started ninth grade taking tenth grade math, which meant that my senior year, I was one of five students taking calculus. So I took AP Calculus. I think the year or two after, a whole class of students, twenty-five or whatever, were advanced, but in my year there were five of us.

One of the things that was sort of fun about that, at the time one of the major textbooks was by George Thomas — Thomas Calculus was sort of the same stature that Stewart Calculus is today. Jean Thomas, George’s daughter, was in my class. So every so often, the teacher would say, “Jean, tell your father there’s this thing on page 17” or whatever, which was sort of fun. It was a nice, wonderful thing.

Mr. Levy would put thought questions up every year … or every week, and you could get extra credit with these brain teasers. Some were … involved geometry, some algebra, there was just quite a variety of things. But it was … that really sparked my interest in mathematical problem solving. He was certainly a very important element there [in my development].
I was on the math team. Senior year I finally did pretty well at that [the math team]. The first years, I don’t know why, but I just … either it was the time pressure or something or other, it was OK, it [my performance on math team] wasn’t great. But senior year I did pretty well there.

I was involved with theatre and music throughout. This was ninth grade in a new school system, so I didn’t know what I was doing. So I tried out for the musical right at the beginning, except it turned out to be a play. I got an assisting role as Ossip in the Inspector General. And so I was in that for a while. And I ended up doing … acting in quite a number of plays. There were some musicals and I did that, too. If you look at my SIGCSE 2010 committee picture — I think that’s the one — which is Sir Joseph Porter in HMS Pinafore. So I was … did a lot with theatre. I was co-editor of the student newspaper. Did a lot of the non-athletic stuff.

I had some trouble in ninth grade in that … First of all, it was a new school system, but also I was your classic ninety-five-pound weakling. My bones had grown at a fairly significant rate, and my musculature simply hadn’t caught up. So I was something like 5’ 11”, 110 pounds, 120 pounds, something like this. So a lot of the athletic kinds of things that boys would normally do, I didn’t do. There was some [trouble with classmates]. Now I don’t know if it would be called bullying or not, but it might be. It was an awkward time. Socially, I didn’t help that a lot, but in any case … In high school — in ninth grade actually, because of some of that — my parents found a gym in … it was just across the Charles River from Boston, Mike’s Health Club, and I learned a little boxing, a little wrestling, a little judo. I think that gave me enough self-confidence that actually then I could get a little bit better respected by the others there, and some of those troubles went away.

B: Did you then make friends or have any particular friends that …

H: I had a number of friends. I have always been really very much of an introvert. I mean, absolutely true. It’s absolutely true. From theatre in high school, I know how to play roles effectively. I know what I need to do. And I do enjoy that. And it’s not that I’m putting it on. But deep down, I’m happy to be just on my own, quietly. I talked to you earlier — this is not an interview about you; it’s an interview about me. But still, when I was SIGCSE chair, the outgoing parts of that were things that I could do in terms of thinking about a role to play, because that’s how I could operate with people. But you are much more of a natural working with people than I will ever be. So my strengths have to do with things that are more the analytical, the organizational, and that kind of stuff. And I do okay, I think, working with personal interactions. But I don’t have the flair that you do. It’s just absolutely how things are. I’m really very much an introvert and I do much better in one-on-one or small group than I do in large group. It’s always been that way.

B: Let’s get you out of high school. But you’re in high school …

H: Yep.

B: … and clearly, Mr. Levy was a big influence.
H: Yes, he was a big deal. Actually in my keynote talk, I also mentioned Eleanor Hoogheem, who was the theatre teacher. And she saw something about me, and that helped me to sort of move out of just being on my own. I had some friends, I didn’t have lots of close friends, but I had friends.

B: I’m trying to get you to think about college.

H: There’s one more thing I want to talk about, though, in high school …

B: More from high school? OK. [talking over one another a bit]

H: My first teaching job was with the Concord Parks and Recreation Commission, teaching swimming in the summers. And that swimming was taught at Walden Pond.

B: Ah! On Walden Pond …

H: So I have a view of Walden Pond which is very different than [most folks have]. So I think of Walden Pond is that first of all, it’s the place … it’s the state park where you teach swimming to little kids. The second thing I think about is from the place you teach swimming, you can cross the street to get to the trailer park and the snack bar. And then behind that is where the town dump is. So my view of Walden Pond doesn’t really match [the views of others].

B: It doesn’t resonate.

H: No. OK, let’s move on.

B: So how did you choose your college? Where did you go and how did you think about it?

H: Well, I applied to five or six, maybe seven different places. My father had gone to Union College and they had a program with alums, so my first college interview was with Union — which was really a very lovely thing because, not only was it an interview for going to that school, but they provided perspective of other places.

I applied to a number of places and visited many and decided that Williams was the place that felt right. I don’t know that that’s because my early years were just a few miles away in Lenox — might have been the western Massachusetts thing. Whatever. I got to Williams and, with the tour guide and the various things, that just felt like a place that was comfortable. So I went to Williams. I was accepted at some other places, too, in New England. But that was … I applied to a lot of places, because I had no idea if I was going to get in or not. But I figured, “Hey, we’ll try.”

B: So tell me about Williams.

[24:39]
H: When I went to Williams, I tell this to some of my advisees, I went to Williams and I was absolutely convinced I was going to flunk out. It was not a matter of “if”, it was just a matter of “when”. So I spent a lot of time in the first few years — every waking moment I was studying one thing or another. I was in the choral society, but I had a great focus on … on studies.

I thought I was going to be a chemistry major — I had advanced placement in chemistry as well. So took organic. Really liked the synthesis on paper, but the labs just didn’t resonate with me very well. So that was OK.

After my first year, I knew what I was going to do. I was going to be a physicist. Because I had a really fine experience with physics in high school as well. That was wonderful. So I then took physics and … in my second year. And that … actually, I guess I had those backwards. I did physics the first year and organic the second. My experience with physics was much the same as my experience with chemistry, in that I liked some of the theoretical sides of things but the lab stuff just wasn’t so much for me.

But I had been taking math all along, had been doing well in math and liked the challenge, liked the pure mathematics. So that when it came time to declare a major, I declared major in math.

A few things sort of stand out in the early years. Since I had advanced placement, I started ahead in math. And then my second … so I started out with, I guess it was multivariate calculus and linear — I guess it was linear algebra at the beginning.

And then the beginning of my second year I took an elementary number theory course from Neil Grabois, who went on to be president of Colgate. But apparently what — I’ve talked with Grabois after, about ten years later — and he looked around the classroom and said, “Oh! All these folks have had abstract algebra. So we can do a bunch of algebraic number theory toward the end of this.” He just didn’t realize I hadn’t had that. So the first part of the semester, the first two-thirds, was really fun and I was going along fine. Then we got to principal ideal domains and unique factorization domains and all this sort of stuff. [I kept wondering], “What’s a ring?” and “What’s a …?” Well, it was an interesting time.

That was the last year that Williams had exams in January. And so Grabois gave out — just to give us some advance notice — he said, “Here’s what the take-home final exam is going to be.” He gave that in December. Then I looked at that, and I didn’t know what the words meant. So I spent basically eight hours a day through that break — between home and going down to [Yale in New Haven] (my parents had moved to Madison, Connecticut at the time), [so I] went to the Yale library [over the break] and learned a certain amount about abstract algebra. I did well in the course, I got an A+ in the course, which was really nice, but I vowed I’d never do that to my students later on. But it really was very important in terms of my development. But there was a real intellectual challenge.
I took abstract algebra later from Victor Hill, who was also a harpsichord player. And Gil Spencer, whom I took analysis from. And I really thrived on the theoretical mathematics. That’s really where my academics were.

I had done a number of things with chemistry. I took a later advanced inorganic course in chemistry. I took several [chemistry] courses. I also had what was equivalent to a minor in political economy. I had a wonderful course in American Art and Architecture. I took a typical liberal arts range of [subjects], but it was really the math that was intellectually the most stimulating.

[29:44]
The first semester of my second year I had a political science instructor who took me aside toward the end of the semester and said, “You know, you’ve got a number of interesting ideas, but you really need to speak up in class more.” Because looking back at how I was in the first few semesters of college, I was just the sort of student that I would currently hate now. Because I just was a sponge. I would absorb everything and never say a word. But the political science instructor said, “You really need to say something or other about what your ideas are. Because they’re interesting ideas, I can tell from your papers, but nobody else knows.” So he said that what I was supposed to do was the next semester, I was to be sure I said something in the first class meeting of every class I took. Didn’t make any difference what it was, but I needed to say that. I took that seriously. And that really made a substantial difference in helping me come out of a shell.

Also the second year I was at Williams, I got interested in a service organization called the Purple Key Club. It was one of these college groups. And at the time … well, they had a number of activities. I would stuff newsletters for athletic mailings. Or I would … a couple of times I was holding the chains for the … in football and that kind of stuff. But one of the big things they [members of the Purple Key Club] did was they gave tours of the college, for the admissions office. And part of the point was the admissions office could say, “These are people that have nothing to do with admissions. They are all just volunteer kids. So you can get a different kind of perspective on the college.” And I gave probably seventy-five, eighty tours. I mean I just jumped into that and I did an awful lot. I think I did substantially more than anybody else. And I don’t really know what the statistics were, but my sense is that I did more of that. I really enjoyed … that is part of that acting stuff. That’s a role. And I could interact with people for that role. So I could do that. And I really enjoyed that.

B: Did you meet computers in college at all?

H: Actually, my … I think it was my second year, Williams got its first computer. Well, they had a public research organization, the Roper Organization, which was on campus, but not really having any connection to the campus. They had a computer of some sort. But it was my second year, it might have been my first, but I think it was my second year, we [Williams] got an IBM 1130 and that was actually open to anybody. We were able to punch up cards, and we were able to physically submit our decks and do that kind of stuff. This was pretty much open.
After you got a little bit of experience, you actually could load your own cards into the card deck — this was a single user machine — so that you could ... you watched the whole thing through. The lights would flash. If something went wrong you could interpret what the error codes were on the console. And all that kind of stuff. So I did that in my ... in Fortran. So I started right at the beginning there.

B: How did you learn the Fortran?

H: They had about a six-session intro, which was not credit, it was just ... Mr. Jordan was the faculty member — math faculty member — who was sort of running that. And he would ... he gave some talks on how you do sort of basic Fortran. And so, if you wrote a program of — I don’t remember what the details were now — but maybe twenty lines or something like that, then that was enough so that you could actually take your own cards and put them in the hopper, and do that kind of stuff. There was enough background that he gave that he could have some confidence that you sort of knew what you were doing. And then you could write programs and do what you wanted. So that got me started. And I became more involved with that over time.

By my senior year I was actually hired as what would now be called the first undergraduate lab assistant in the computer center. So I gave those introductory talks, and I was there on a certain basis — I even had an office in the new science center. So when my wife Terry and I first met, when she was on the Williams campus — I gave her a tour, of course, of the Campus Center. Then there was the science center and there was my office. [Laughter]

So that was the kind of computing background [I had]. And I really enjoyed that kind of computing work. But for ... in terms of academics, I did take one course, I guess — which was really a numerical analysis course — where we did some computing, but otherwise it was all pure mathematics. I really liked the pure mathematics and decided to go on to graduate school in pure mathematics.

B: How did you choose your graduate school?

H: Actually, well first ... there were several things. First of all, I applied to a lot of places because, again, I had no clue that I was going to get in anywhere, so I figured I’d just better try. Okay. So ... I was accepted, I think, everywhere I went ... I applied. But how to choose? I didn’t remember what field I was interested in. I liked theoretical mathematics. But was that algebra or was that topology or was that analysis or what could I say? Well, I didn’t know. It was all just really pretty spiffy.

I liked the idea of a small department. So I really liked the idea of going to Yale. But that was the time of the Vietnam draft. And they had a terrible track record in terms of losing people to the draft. So I didn’t go to Yale. I went to MIT [Massachusetts Institute of Technology]. Because MIT had a really good track record of writing to draft boards and doing that kind of stuff. And that turned out to be a fine choice. I think Yale would have been a fine choice, too, except for the Vietnam War absolutely had an impact from that standpoint. So I went to MIT.
B: So tell me about the influences at MIT.

H: MIT. Well, I went there as a … with an NSF fellowship, which meant that I was supposed to take four courses a semester. It meant that I wasn’t a TA [teaching assistant] or an RA [research assistant] or any of that kind of stuff. But I had this assistantship. That meant I could focus on those basic introductory courses.

At MIT, they had a strong applied math program, a strong pure math program, in the same math department. But the structure was that you would have the chair of mathematics, under which there was a chair of applied and a chair of pure, and from there on down the two parts didn’t talk to each other. So I was in the pure math side and the expectation was — the recommendation was — that you take a course in algebra and a course in topology and a course in analysis. And that was the right thing to do, and there wasn’t any question about that.

But NSF required that I take four courses. So they looked at my transcript from college and said, “Well, it probably won’t hurt you to take a linear algebra course. Because there might be some things there that you don’t know about. But you have to take a fourth course and that’s as good as any.” So I took that as well.

That gave me some insight that the approaches to teaching at MIT were not necessarily the same as the approaches to teaching at Williams. The … I think, to be on the record, I will not talk about the linear algebra course, but it was … I cite it often informally as illustrating a variety of things that one should really not do in teaching. It was pretty awful.

One thing that was sort of fun. The instructor gave take-home tests in that linear algebra and was tired of all the standard stuff. So one of the questions was, “Give incorrect definitions for the following terms”.

B: [laughs]

H: So this was something that I thought was just fabulous. I could just let my imagination go. So I started, “A linear transformation is a model city’s program in Flatland.” I really just enjoyed that kind of stuff. But actually, we were told later, there were several people who got points off on that. Because they used double negatives and such and actually ended up with the correct definition. But it had little to do with understanding of linear algebra.

B: So were you enrolled in a Ph.D. program?

H: Yes, Ph.D. program. But I really enjoyed the analysis, the topology, and the algebra.

B: And so how did you choose what you were going to go dig into?

H: As an undergraduate I had spent a summer in what would now be called an REU [Research Experiences for Undergraduates] at Wesleyan University doing topological groups. It was
really more of a study kind of thing, it wasn’t really research. I worked through a book and
learned a lot about, really, point-set topology and group actions and that kind of stuff. And
that was something I really enjoyed.

And I liked the topology side of what I saw so much in graduate work, although it was much
more into algebraic, not group actions as much as transforming questions of topology into
questions of algebra. So homotopy, homology, cohomology, and some of those kinds of
things, which were techniques [for doing that].

I really liked that combination of algebra and topology. So that, I think, is part of what got
me into algebraic topology. Another part is I think I’d had so much analysis in college that I
was just sort of tired of that. So it [analysis] was fine to do, there wasn’t anything that was
bad about it, but the topology and the algebra in that combination just seemed really pretty
exciting.

B: So then how did you choose your thesis advisor or did he choose you?

H: I chose a thesis advisor, Franklin Peterson, who was just wonderful for me. He had done
some really interesting work in some of these combinations of topology and algebra and
some techniques to get at that. But I was interested also in some of this topological group
stuff from the undergraduate, so I actually had a thesis topic which sort of combined the
topological group setting with some of these other algebraic structures, which I would think
probably Peterson knew a whole lot about, but seemed sort of generally interesting to him.
He was very good at letting me find my way. He was very helpful, encouraging, but also
good at keeping me on track and asking the right kinds of questions and all of that kind … I
met with him weekly for several years, for two years anyhow.

B: How long did it take you to get through?

H: Four years to the Ph.D. from coming in to … and that was actually quite common in that time
for mathematics. It was clearly different in engineering fields, it was longer. But in
mathematics, that was sort of the norm.

B: You had mentioned that Terry had been in a group that you led around Williams. Were
you married at this time or …?

H: So she went to Wheaton College in Massachusetts, and we met singing. Because she was in
the choral society there, and I was at the Williams Choral Society. At the time both schools
were single sex. So if you wanted to have four-part music, you had to meet with a different
school. That’s sort of how it worked. So we did … Williams went to Wheaton to sing and
Wheaton went to Williams to sing. And then …

It was common at Williams in spring break that the choral society at Williams would team up
with a choral society from a women’s school, and we would tour during spring break. So
anyhow, we did that. And so we had been dating. She graduated a year later from Wheaton
than I graduated from Williams. She went to Boston University in music, and so we were sort of close to each other. And then a year after she moved to Boston, we were married in 1971.

B: Then you got your Ph.D. Were you doing any computing while you were at MIT?

H: Absolutely not. No.

B: No. So what happened next and how did you decide?

H: Well, I wanted to teach, which … my thesis advisor, I think, really didn’t know very much about teaching. But he had recognized that I had this interest. So after my NSF fellowship was done, he got me a … involved with the Experimental Study Group at MIT, which was an alternate teaching environment, and that was something that really was very helpful. But also in the summers, MIT offers a certain number of courses, and they asked all the full professors, “Do you want to teach those [courses]?" and worked their way down. And mostly graduate students ended up teaching those courses.

So my first teaching experience, really, in a classroom doing my own stuff, was in the summers. I taught first a course in differential equations, which was interesting because I never had a course in differential equations. So I did that.

And then for three summers, I think it was by the time I was done, they had this intensive review course of calculus and differential equations for people coming back to graduate work after being away for a while. Most of the people in those [courses] were career officers who had been on active duty for five years and were coming back to do Master’s or Ph.D.s in Naval Architecture, Electrical Engineering, etc. And they really knew they had to learn this stuff. They may have had it once but they didn’t know much about it. This was a course that met two hours a day, five days a week. And they actually had two graduate students that were teaching — one the first half and one the second half. And so I put together a schedule of how to get through three semesters of work in one summer. And I was told that that particular schedule was still in use about ten years later.

Oh, I should mention that the differential equations course before that, again we were split up. I did half of the summer and the other person [did the other half]. I did the second half of that particular differential equations course. And one of the reasons why that’s noteworthy is that Terry and I were married on a Sunday and I taught an 8:00am class on Monday. Just to point out that … but, you know, the schedule was such that that’s sort of how our life has been. And we took a honeymoon later, a few weeks later. Alright, so …

B: So now you’re thinking about teaching.

H: So now I’m thinking about …

B: So how are you …
H: So Peterson was … because of his influence, I was able to get some teaching experience as
an undergraduate … or as a graduate student.

B: Graduate, yeah.

H: And in fact, with the job market the way it was, I stayed on a year at MIT after my … getting
my Ph.D. So I got my Ph.D. in 1973, but I taught there as a lecturer until the middle of 1974.
And then I was looking for teaching jobs. So I worked with an office there and sent out 150,
175 applications. Because jobs were tight in 1974. And so I was looking for a job that I could
really do some teaching in. And I got a phone call from Grinnell.

B: Had you heard of Grinnell?

H: No. Now because of the software that was available in the … whatever the office was at
MIT, that was a time when they could do mail-merge kinds of things. That was pretty state-
of-the-art at the time. So the letters that I applied with actually had, individually, who this
letter was to. And that was pretty unusual, so that sort of gave an added [indication] that I
was interested in them.

But I sent out, I just flooded the market, because it was a very tight time. And I’m told— I
don’t now if this is true — but I’m told that I was one of 450 applicants at Grinnell. I don’t
know if that’s true, but it might be. I do know at least one of the other finalists, who was
absolutely first rate. And I have no idea why I was hired. If I were to guess, I would guess
that it was my thesis advisor talking with one person that had been an instructor at MIT for a
while. That would be my guess, but I don’t really know. So I was … pretty much, I was
lucky.

[50:05]

B: So you landed at Grinnell.

H: Yup.

B: You’re an assistant professor of mathematics.

H: That’s right.

B: And …

H: First year I taught …

B: I look at your resume and you are now a professor of …

H: Computer science.

B: … computer science.

H: Well, there’s another degree in there, too.
B: So would you have … you have to get from there to there.

H: That’s right.

B: So tell me how you got from there to there.

H: Well, that … so I was hired by, well, President Leggett and his administration. But he had left within [my] first year or so at Grinnell. And we had a new president, college president, A. Richard Turner. And at the time at the math department, we were all very close in age and in [perspective]. I was the only — we were a department of five — I was the only one that didn’t have a seven-year-old daughter. Remarkably narrow range in terms of people that were there.

B: And gender?

H: Well they were just all male. The department, yeah.

B: OK. It isn’t obvious …

H: I mean, I’m trying to think. I think it might be … yes, it was the case that the seven-year-olds were all daughters, too.

B: Mmm hmm, but all of the …

H: That’s right. And that was pretty common at the time.

B: Not the daughters part.

H: Well, it was common at Grinnell at the time. So, A. Richard Turner came in and at Convocation — I think it was my second year, it might have been my third, I think it was my second — he said, “We really have to worry about context when we are talking about tenure, because we have to have flexibility in terms of staffing. And if everybody is all together in terms of age and such, that really means that if they are all tenured, we are going to have a long-term problem.” And he specifically mentioned mathematics as what should never be allowed to happen. So basically at fall Convocation he said to the campus community that I had no chance of tenure. And there were two of us in that situation, one was a year ahead.

Well, this did make one think a little bit. At the time, there were a number of projects to get more computing people. There was the IFRICS program [the Institute for Retraining in Computer Science] that NSF founded [with the Mathematical Association of America and the Association for Computing Machinery] and a number of others where people who were … had strong mathematics backgrounds could do some retraining to do some computer science. So I thought I would perhaps pick up some of these interests that I’d had as an undergraduate, doing the computer lab stuff.
At the time, there was a program in the state of Iowa where selected faculty from private Iowa colleges could enroll in degree programs at the state universities with a tuition waiver and a stipend that would mostly cover books or maybe a little bit of travel, but not much. But at least it wasn’t an additional cost. So, I talked to the Grinnell administration, and I was designated as a person that could enroll in a Master’s program at the University of Iowa in computer science.

This was a little troublesome, in that although a number of courses are taught in the summers, not all required courses for a Master’s in computer science were taught in the summer. So, the acceptance letter that I have into the program says that they were delighted to have me but I should realize that there were some real issues about scheduling because I couldn’t just complete this in the summers. But I started then. I did take summer courses. Terry was taking courses in the library school there. And so we commuted in the summer. She was going through the year, but I was going just in the summers.

Over the course of two summers, I was able to get a moderate number of courses into the program. It was a little bit exciting, too, because at the time I was also grading Advanced Placement exams, which took a week out in the summers. So I would get the assignments ahead of time, and I would do the homework and the reading and whatever the assignments were and such, so I could be caught up when I came back. There was almost always a bit of stress when I came back — is this going to work? But it did. There are some stories about that which we could or could not talk about, whichever you want to do.

But in any case, after a few years, I was able to get many of the courses done for a Master’s in computer science, but there were, I think, three that I needed to do. And they were only offered during the year. And they were offered Monday, Wednesday, Friday. So this was a little troublesome, because if you are at teaching school, and the University of Iowa is an hour and a half away, you’re not going to get in for three days a week.

So what I did is I cleared Tuesdays as the obvious time in my schedule. And I talked with the graduate advisor at Iowa, Art Fleck, and he was teaching a course, I think it was on theory of computation or it was on parsing and compilers and that kind of stuff. Maybe languages. And I … we worked out an arrangement where I would take his course. I was enrolled in his graduate course that met Monday, Wednesday, Friday. But what I would do each week is on Tuesdays, I’d come in and I’d meet with him. And I’d hand in the homework from the previous week. He’d talk a little about whatever was coming up, what was going to happen next. If there was a test, I’d take the test. Then I’d go back home and I’d do the reading and [I’d do the homework] for next week. That worked OK. All together, I’ve had Art Fleck for three graduate courses, and I’ve never once heard him lecture, never once.

But that’s how I got through the Master’s.

At the same time, we got a computer on campus at Grinnell, a PDP 11/45, which we outstripped quickly and went up to a PDP 11/70. And by the end of the 1970s we had this innovative beginning BASIC course, which you could take for one or two credits. If you took it for one credit, you could take it for the second credit later on. And it did the standard introductory computing stuff. It met once a week. And we had different problem sets for
students with different interests. So that if you were interested in physics, this is the problem set, you could apply all the computing but you did it with physics problems, or with chemistry problems, or statistics problems, or calculus problems, or whatever. And that course just took off.

I ended up writing an introductory chapter of probably about 100 pages, 150 pages, of the basic computing stuff. And then there were these different problem sets that were all attached. And those came together as the first book that I came out with. There was actually a Fortran version and a BASIC version, the first two books. I had done the first half and was the editor for the others. But the others were written or co-written by various [collaborators].

B: At what point were you in your tenure stream?

H: Well, that came out just before tenure — that’s why I actually mentioned that at this point. So that came out and then the next year I was up for tenure. And that surely helped.

B: That put you over …

H: We also had a different president at the time. So that those comments about what should never be allowed to happen didn’t have impact on me. I don’t really know about the circumstances for the person that was a year ahead of me, because he was not tenured. And I don’t know why. I thought he was a fabulous teacher, an active scholar, and all that, so I thought he was a shoo-in for tenure, but for whatever reason, he didn’t get tenure. And for whatever reason, I did and I don’t really know why.

B: So this was the late 1970’s and you’re still an AP grader in math — there wasn’t an AP in computer science yet.

H: Yeah, mmm hmm.

B: And you continued then … added computing courses at Grinnell?

H: Yeah. So over the course of quite a number of years, we gradually increased the offerings of computing courses. I should say for this innovative course that I had this first book out in, it was Math 101. And as far as I know it’s still the only course at Grinnell that has ever had enrollment higher than the course number.

B: Really?

H: Really.

B: Higher than one-oh-one?

H: We had about 150 students a year … a semester.

B: One section? Or more than one section?
H: Well, we couldn’t have it in one section because we didn’t have any rooms that were that big! So there’s one semester I did the same lecture three times in different — just because that’s the only way you could get them all together.

B: So I can see how this goes.

H: Mmm hmm.

B: Computing becomes more popular. Were you involved in professional organizations at that time?


B: About the same time?

H: Yeah. It seemed like about the right time. My first sabbatical was at Bell Labs in Piscataway, New Jersey, where I was doing a big … it was really a database, a distributed database system. I was looking at system administration issues and that kind of stuff, which was sort of interesting. So I was getting into the computing profession. And if you look at what happened from the mid-1970s through mid- or late 1980s, there was this steady transition as I was going more into computing and correspondingly less in math.

And, you know, it’s just curious to me. My current title is Professor of Computer Science, but I am also the Samuel R. and Marie-Louise [Rosenthal] Professor of Natural Science and Mathematics. I’m not quite sure how computing fits in with natural science or mathematics, but there is that kind of range of topics that I cover one time or another.

So we added a few courses and there was never really this long-term plan for how does one get a major. It was an on-going sequence of ideas of, “Well, the next step might be this.” Or “There might be another couple of courses you could do within this framework” or whatever. There was this notion in the 1980s of interdisciplinary concentrations. So it seemed like it might be interesting to have a computer studies concentration. You know, do some computing and some applications and a variety of those kinds of things. And that worked well for a while and then we moved on beyond that. The major, I think, came in 1991. But there … it wasn’t just suddenly, “We’ll do this [major],” it just progressed through quite a number of years.

B: Rather than go into a whole lot of detail, I’m trying to figure out what the pathway that led you from being a member of a society to being such an active … seeing the idea of service in the society. Can you tell me how you made that transition and what made it happen?

H: Well, I had been going to SIGCSE conferences. At the time there was this Computer Science Conference, where you could go to one place and hear about all these different areas. So that was very attractive. And attached at the end was the SIGCSE Symposium. Or actually, as
you know, the symposium to ACM means a small conference of about, what, 400 or
something like that. And that’s probably about right for where things were at that point. It
was just sort of stuck on at the end. And at some point, I was asked to be, I don’t know,
panels chair, or workshop chair, or something like that. So I got a little bit involved with that
kind of stuff.

Through … well, until about 1982, I was involved with Advanced Placement mathematics.
But the Advanced Placement computer science came in 1984. And in 1984 they wanted to
have some people who had some experience grading AP something to be readers for the new
AP computer science. So I was asked to be a reader for AP computer science in 1984. And
then in the next few years I met a whole lot of people that got me more and more involved.

I talk about that because several of those contacts really were important in getting me
involved more with SIGCSE as well. So one that surely comes to mind is Nell Dale. And I
met her, I think, first at an AP reading. So, on the one hand, there were these separate spheres
that I was in, but they all sort of intersected in different ways. So that came … let’s see. So I
was involved with a few workshops and some of those kinds of things. Some activities with
… in smaller roles in conference committees and that kind of activity. And then I was asked
wouldn’t I be willing to run for secretary/treasurer in 1993. So at that time I was elected, I
don’t know why it was, but I was elected. And that got me more involved with the SIGCSE
organization itself.

And then I had some gradually expanding roles until Nell asked me to be — well, Nell and
Boots Cassel — asked me to be the program chair when they were Symposium co-chairs for
the 2000 conference. And in 1999, when they’d asked me to do that, they said, “Well, we’re
still doing all these paper submissions on paper. Hard copy. What do you think about trying
to do something or other to allow electronic submissions?” So it was their interest in maybe
expanding that paper submission system that led to my working with some students and with
Terry and with others to get this paper submission system ready for submissions for SIGCSE
2000.

B: With Terry?

H: Yes.

B: Your wife Terry? I … tell us a little bit about that connection. I was unaware of it.

H: OK. Well, she’s had a long and varied career, which we could do another whole series of
interviews about. That included doing a fair amount of work with… well, first of all, library
automation — she was ten years as Assistant Librarian for Reader Services at Grinnell. And
then she moved on and did some … well, some tech-related things as part of a role as the
economic development person for Poweshiek County, which is where Grinnell is. Then she
went and took some additional coursework in … oh, in database and programming and that
kind of stuff. And ended up working for a variety of different companies, first in Cedar
Rapids, then in the Des Moines area. So she had experience with web-based applications and
database and such well before I did. So she actually knew what she was doing, at least … we
didn’t know how to do it quite in the environment that we had, but at least she had actually
done some of that. So yes, she was an active participant in that.

B: Mmm, that’s very interesting. Keep going in terms of … I’ll start almost at the end and
go backwards. Can I do that?

H: Whatever!

B: This week you made a lovely donation to the organization to start funding scholarships
for young academicians to come to SIGCSE, and that’s a wonderful thing.

What’s your teaching philosophy that makes you — is consonant, I guess — with
getting young faculty at SIGCSE? So what’s your teaching philosophy and what would
you like to inspire in new faculty?

H: I suppose a lot of this goes back to being a product of the 1960s, where there was a real sense
of … that service and social responsibility and a lot of those kinds of things. And certainly
back to my parents and others as well. So I’m really interested in working with educators at
all levels to help improve education, help teaching, getting people involved, getting … I’ve
benefited a lot over the years with talking to people about what works, what doesn’t work,
how do you deal with this, all these sorts of things within teaching. The network has been
very important for me. And I don’t know whether that’s a philosophy, but it's a …

I really have this sense of really needing to work within a community in order to develop as a
teacher. There have been several organizations that I have been part of that have all been
involved with that, but SIGCSE is the big one in terms of the size and the diversity of the
group. And my vision for SIGCSE had been that this would be one organization, which could
include all sorts of different perspectives. The field is more … tends to be more …
compartmentalized than I would prefer. So you see SIGITE, you see AP-CS, [you see
CSTA,] — you see a number of these groups that are sort of affiliated. I would have
preferred to see all of them together. But I understand. There are reasons it has developed the
way it is.

But I do have this sense of a community really interested in how do you move forward in
education and connect with students. How do you connect with not just this group of students
or that group of students but the whole diverse population? So what’s the state of education?
Well, the state of education is one where there’s limited funding. Resources are sometimes
available, often not very well. So how do you make a difference in that? As I said in my talk
earlier this week, I am one person, I can’t do everything. But I feel very strongly that that
doesn’t mean that I can’t do anything. So I need to find where is there a need that could
actually maybe help somebody.

B: Were there … you got this path. You showed how this path worked. And were there
any particular challenges in your work environment — except the “you’re not going to
get tenure” statement — that …
Henry Walker

Interviewed 9 March 2013

Transcription as of August 6, 2014

H: Well, that was sort of ...

B: … that’s a big one. But compromises between work and home or …?

H: I said in my keynote, and I really mean it, I think Terry and I have been a very good team. She’s had her professional career. I’ve had my professional career. And we really have been very good at trading off what needs to happen. When the kids were around at home, each day we would need to think about, “Now who is going to be picking up which kid where and do what?” We both did our part.

B: Tell us a little bit about your children. How many children do you have?

H: I have two children. Donna lives in San Jose, California. She went to Kalamazoo College after Grinnell. Both kids said that they wanted … they both were very involved with the Episcopal Church in Iowa and wanted to start off fresh for college. So the first requirement of a college for them was that it was out of Iowa. I think in terms of priority list, the second might have been that it was accredited, just to sort of put this in perspective. [Both laugh.] So they were looking for places …

My older daughter, Donna, was interested more in business, economics, that sort of stuff. She went to Kalamazoo and then has gone out to be involved with Symantec Corporation, which [develops] Norton Anti-Virus. And she’s in the marketing, and sales, and that side of things there. That seems to have been a good fit for her. One of the interviews … as she was working with Symantec, they were interviewing. One of the people they interviewed was a fellow named Jeff Walker, who was also interested in marketing and that kind of stuff. And so she ended up interviewing her future husband for a job at Symantec as well.

B: And became a Walker Walker.

H: And became a … well, there were a lot of jokes about this, which I think you’ve heard. Walker Walker. Walker squared. [laughter] Can’t be Walker-dash-Walker because when you subtract there’s no last name at all.

B: Oh, dear! And your other daughter?

H: The other daughter is Barbara. She works now for the Ohio Environmental Protection Agency. Her area is atmospheric quality. She does a number of things related to licensing and permits and that kind of thing. When there are complaints about air quality and such in her region, she’ll be involved with that. She’s also gotten involved with various emergency response [activities], and she is on emergency search teams in the state and does a variety of [search and rescue] kinds of things.

B: I just note — this is usually not the role of the interviewer — but was there a requirement at Grinnell that you have girls in your department, that you only could have daughters?
H: No, Sam Rebelsky in our department has three boys.

B: Oh, good. Good. OK.

H: And actually Jerod Weinman now has a 2 ½ month old boy.

B: Oh, good. Good.

H: Yes. But there was a history of this …

B: I was just worried there for a minute …

H: Yes, well …

B: Were there some compromises that you had to make in the course of your career?

H: Well, you know, every institution has plusses and minuses. And there are things that you look at and say, “This isn’t optimal.” And well, you know, Grinnell is like that. When I was at Bell Labs, I really loved the work, but I couldn’t teach. That’s just not how it worked there. So I came … Terry wanted to come back and I really missed the teaching, so I took a 153% pay cut to come back to Grinnell.

B: So when you went to Bell Labs it was actually not just a summer employment, it was a full-time …?

H: It was a year job. They knew it was a sabbatical. But they knew that there was a possibility that …

B: It might happen.

H: … we’d see how it went. It was a wonderful environment in a lot of ways, but it didn’t have the teaching.

B: You talked in high school about your drama outside interests and your music outside interests. In college that continued. Do you currently have outside interests …?

H: I like to do … I like to sing. I like to play guitar. So when my kids were in college … or were in high school and junior high, I was really the music person for various high school and junior high youth camps and retreats and that kind of stuff. And yes, we did, in fact, give page numbers in binary. We did, in fact, talk about the Evening Prayer starting on page two-to-the-seventh-minus-one. And that was just how things were.

B: Are you still continuing with the music?

H: I don’t so much right now. There are some details of why not. But that’s … but actually I’ve been very fortunate, just on the side. After I graduated from Williams, the Williams Choral
Society [director] hooked up with the Detroit Symphony and asked the alums to come back, and so I have sung in Carnegie Hall with them, with the Detroit Symphony. Then when I was at MIT, I was with both the MIT Choral Society and the MIT Chamber Group. And the Chamber Group was invited to sing in Carnegie Hall for alums. So I have actually sung in Carnegie Hall twice.

**B: Would you reflect on your career and what you’ve done? Name me three things that you are most proud of.**

**H:** I think one of the things I’m — there are a lot of family kinds of things, too, [talking at the same time] but let’s talk about professional things.

I’m quite pleased that SIGCSE has evolved the way it has. We had had a period of gradual decline in membership for quite a number of years. And while I was on the Board we were able to take a number of initiatives and do a variety of things, so that we turned it around. I had found that SIGCSE was a wonderful place for networking, for learning about how to become better teachers, and all that kind of stuff, but then the number of people taking advantage of that was going down.

There were a number of reasons for that and the membership went back up. So, while I was chair, we went from, I think, the eighth largest SIG [Special Interest Group] to the fourth largest SIG. I don’t personally take much credit for that, because a lot of people were doing a lot of things. And I like to think that I was helpful to let people do the stuff that they could do. I don’t know to what extent I have much credit for that at all. But we were able to do that. I am a goal-oriented guy, and we got that done. And however it happened, it happened.

**B:** Okay.

**H:** Another thing, I’ve been involved with a number of … oh, curricular and pedagogy activities. I really like working with projects related to what content should be, how that should be mapped into curricula, and what pedagogy can support it. And I think that perhaps some of the [work] I have done maybe has been helpful about that.

I am just working with Sue Fitzgerald right now on what I think is my 34th external review. So … and I think those have been good reviews.

I have just finished chairing a Program Study Group for the Mathematical Association of America on connections that are possible between mathematics and computer science/computational science. I would like to think that some of those kinds of activities are helpful.

Again, you know, these are sorts of things that I think I’m engaged, but whether … what the real benefits there are, the real impact, I don’t know. There have been a number of folks over the years that I’ve been able to work with and serve in some sort of mentor role. And again, when you’re working with students, or working with colleagues, you often really don’t know what impact you’ve had. I’d like to think that some of that’s been useful. But you don’t really
know that very much, right? You know, it’s just … that’s the nature of teaching. You sort of try to plant the seed, try to help things grow, and eventually something happens. Maybe.

B: You anticipated the question I was going to ask about mentoring and you answered it.

H: Hey!

B: And that’s a very good …

H: I didn’t even read your notes.

B: No, no, no. Um …

H: But I really have … there are a few people where I’ve done various interactions over the years that feel at the Symposium the need to check in with me and tell me what they’ve been doing and that sort of stuff. And I’m delighted to talk with them, but it seems they actually have a need to keep me up-to-date and such. So I like to think, at least in those cases, that maybe I’ve had an impact.

And then once in a while, something happens where you realize that you might have made a difference. One of my students early on was Nathaniel Borenstein, who went on to be a primary author of MIME protocol, which is how you send attachments in email. He was a double major at Grinnell between mathematics and religious studies. He went on to Carnegie Mellon for his Ph.D. And in his first book he named both a religious studies person and myself, which was very nice.

B: Very nice.

H: So once in a while you get something, but mostly you don’t really know. And that’s just sort of how the teaching profession goes.

B: Right. If you had one word of advice that you would give to a … let’s say a young woman starting out in computing, since this project started out looking at women.

H: Yes, right. Mmm hmm.

B: But we let men in so we can see the differences or the similarities.

H: One word is hard. Well, particularly, as you know, for me, I mean …

B: I didn’t say … you know …

H: But …

B: A word of advice does mean a paragraph.

[84:31]
H: OK. I guess for me, on the one hand there’s been a certain amount of planning. There has also been a lot of paying attention to what circumstances you find yourself in, and taking advantage of serendipity. And, you know — as I have built the program at Grinnell or as I have seen various things in the SIGCSE organization — yes, there are some general principles of inclusion, and respect, and social responsibility, and those kinds of things for SIGCSE. Or some ideas of you should expand computing somehow in the Grinnell curriculum. But when you start along a path you certainly know a bit of where you are starting from, but you know that will change when you do the first steps. So the way you may be envisioning the path at the beginning is absolutely not going to be how it is going to work. Because when you take a couple of steps, there is now a different environment. You are in a different place yourself. And so you need to keep listening, keep re-evaluating, keep thinking about what sort of an interesting, worthwhile thing to do next.

B: Hmm. That’s good advice.

H: Was that a paragraph?

B: Yeah. This is a harder one, maybe. If you could change one decision that you made, what would it be?

{very long pause; 21 seconds of silence edited out}

H: I suppose, the way I look back over the years, there are some mistakes that sort of stand out. Of … you know, I missed a lighting cue [in high school], which really was annoying for somebody or other in the theatre. Did that have an earth-shaking effect? I doubt it. But, you know, there are a variety of those things. When I was on the SIG Governing Board, there were some things, when I was tied up with one area, and that may have influenced another area. Um …

B: It sounds like the answer is basically “No”.

H: There aren’t a lot of things … there aren’t “big picture” things. Well, maybe the SIG Governing Board one, although that was a different kind of environment, so I’m not so sure. I’ve made mistakes that I acknowledge I’ve made mistakes. There are times when I would have thought it would have been nice if things had worked out differently. But generally I think I’ve been a pretty lucky guy. Early years at Grinnell were very difficult with financial circumstances and such. That was a different time. The things I usually point to when I’m talking to colleagues is that — well, there was a misunderstanding of salary when I came [to Grinnell]. So then, Donna arrived 1976 and …

B: Donna who?

H: Donna — this is my …

B: Your daughter.
H: … my daughter. She’s … and so she turned out to be high and breech, so Terry needed a Caesarean and that was not covered by the college insurance. Those are some things that are difficult. And we could spend a long time about some of those.

B: Yeah.

H: But, you know, overall Terry and I have worked through a bunch. We have … we’re both strong-willed people. We have our own views on things. And so, you know, there’s some negotiation. I think that’s how it is in pretty much any relationship. Overall, I’ve been pretty lucky.

B: The last question.

H: OK.

B: Many people don’t answer it, so you can pass. If there’s one story that you want to tell so it will be remembered.

{very long pause; 23 seconds of silence edited out}

H: I guess the first thing I think about has to do with various teaching scenarios. I’m not sure I’m going to come up with a specific example, but I might. I’m sort of thinking out loud, as I’m going here. But teaching is about connecting with students and thinking about how do you really get into the minds of the students where they are. So I think actually there are two things I want to say. I know you only said one, but you can edit one out.

One. When older daughter Donna was in third grade, she came home and had a question about math. At that time, the whole class she was in would go to a language teacher, and then to a social studies teacher, and then to a math teacher. Her math teacher was Mr. Connor. She came home and had a question one day. And I said some stuff — that was my field and I knew about that stuff. And she listened to me and said, “You know, Dad, Mr. Connor says that a whole lot better than you do.” You know, she was absolutely right because he understood how third graders work. And, you know, I quote that story often, because each area of teaching is special. It’s not just about content. It’s how do you connect with that particular group. And Mr. Connor could deal with third graders in a way I would never be able to. And I think that’s an important thing to keep after.

[90:59]

Second thing, not completely unrelated, but not the same. It’s common in a computing course to talk about binary search. So the approach that I typically use — I got it from someone else; it’s certainly not original with me, but I’ve used this from time to time. And it happened that there were a couple of prospective students in class the day I was doing [the binary search]. So what do I do? I got out an old Grinnell telephone directory to do binary search. How would you look up this name? So I turned to the middle page. It’s going to be in the second half of the book, so I just took the structure and ripped it in half. And I thought those two students were going to just fall on the floor. {both laugh} But then, you know, it’s called a destructive binary search.
But the point is — it’s the same kind of thing as the Mr. Connor story, really, in that how do you connect with that particular set of students in a way that is going to have an impact on the way they think. So to me, if it’s going to be a story, it’s going to be a teaching story, because I’m a teacher.

B: Henry, what a wonderful way to wrap up the interview. I cannot thank you enough. Your stories were delightful. This has been absolutely my pleasure.

H: I find it an honor that you’d select me to be part of this whole series. This is really wonderful. And thank you.

B: You’re very welcome.

[92:49]