Did I give and pronounce your name correctly?

Katie Siek: Yes.

V: Great! Thank you so much Katie for agreeing to meet with us. This is going to start way back when, in your childhood, growing up. Let’s start by talking a little about your parents. Can you tell me about their education, their work life, a little about who they were?
the nursery school head and helped grow it to be … it was only a two-day a week program and
then she had it as a five-day a week program, with from two-year olds to four-year olds. And so I
learned a lot just by watching her, about how to get it started, how to have meetings, how to
photocopy and fold all these mailings and send it out to people and get the word out about your
nursery school kind of thing. It was really neat to watch her do that.

But … and then she went into a job as a … she was a food service worker at a high school. And
then she became a food service worker at a school that helped children with disabilities. And she
was so good with the children, they said, “You should really become a para-professional. We’d
really love to have you in our classroom with our kids.” So then my mom became a para-
professional. And that was when I was in high school. I spent my summers sometimes with my
mom in this school, kind of being an assistant para-professional in the classroom, working with
children with special needs.

And then … when I was in college, my mom decided she really wanted to do something different
with her life. She wanted to make more money. She wanted to have a retirement. She wanted to
go to college and become a teacher. So she decided to become an electrician, a union
electrician[,] and I am very proud of her for that]. And it’s so round-about, but this is the way she
wanted to do it. She wanted … she decided she was going to become an electrician. And a union
electrician is incredibly difficult. It’s … you work as an apprentice during the day, so depending
on the job sometimes, you’re up at 4am and you’re working till 4pm. Or sometimes if you’re
working at a restaurant, you’re there at 11pm … you’re there at 10pm or 11pm when the
restaurant closes. And you’re working until 9am in the morning or so, depending on that. And
then after she would work all day she would go to school at night … part of the electrician’s
union, which is like 4 hours a day. Each evening with homework and such to learn about how to
become a full electrician.

Unfortunately, she got cancer during that time. It’s a … I think it’s a seven year program and she
got cancer in like her sixth year and she passed away before she finished. But her whole plan was
to become an electrician and then, once you’re a full electrician, they’ll pay for you to go to
college. So she found her way to get a full ride to college. And she knew she had to do well, so
she was always on her homework and emailing me when I was in college asking for help
because they were doing binary and such. She called it “bee-inary”. She said, “This bee-nary stuff
is killing me.” And she said, “There’s ones and zeroes and I don’t know what to do.” So she was
pretty awesome in that respect.

And then my father, he worked as a … when I was younger, I barely saw my father. He really
sacrificed so that my mom could stay home with us. He worked as a roving crew person on a
golf course. So he would start work around 3am or 4am in the morning and come home around
8pm or 9pm at night. Or he would leave before we woke up and he’d come home after we had
dinner. But … and then on weekends, he’d sleep most of the time. That’s definitely what I
remember of my dad from when I was little. But I understand now the sacrifice he made so that
we could have one parent watching us.

[5:17]

And then as I grew up, though, he worked for the county, Suffolk County Parks Department. He
became like a park supervisor, where he had better hours. He would go in at 5am or 6am in the
morning and be done at 4pm. And so he … when I was in high school, he never missed one of
my sporting games. He always was at my field hockey and basketball games and very
supportive. And then he recently retired. Which is nice, because he’s been working since he was
18 years old, so it’s nice that he gets to retire and kind of enjoy life, so that’s lovely. Those are
my parents. [laughter]

V: And how long ago was it you lost your mother?

K: I lost my mom four years ago. And now I have a really wonderful stepmother. She recently
retired too. My dad talked her into retiring. And she was a head manager at a pharmacy like CVS
or Rite-Aid. And I learned a lot from her, too, on that. Just on how horrible we treat people in
these kind of service industry … not even necessarily service industry. But like my stepmother,
she doesn’t get a day off from October 1st until December 25th. She gets Christmas off. And she
works 12-hour days. And it’s just horrible the way they treat these managers. Because the
manager’s salaried. And each manager gets so much money to have people working in their
store. But when the minimum wage went up (which it should have — it’s not a minimum wage
… it’s not a living wage, it’s a minimum wage). But when minimum wage went up, they still
gave her the same amount. So that meant that all her employees had less hours to work. So then
my dad would come home from work and help her. And she had her kids coming in. And I don’t
live on Long Island where they live, but she had everybody coming in from her family doing this
free labor, helping to make sure things got done on time. And if they didn’t get done on time
they were always threatening to fire her. And that meant she’d lose her retirement and everything
that she’d been saving for. So now when my dad retired, she retired too. So now they’re both
kind of relaxing and able to live their life.

V: That’s good. Sounds like they were lucky to find each other.

K: Yeah. Very lucky.

V: Yeah? So where was it that you grew up and went to school?

K: I grew up on Long Island, New York, in Suffolk County. Most of my life I grew up in Lake
Ronkonkoma, New York. It’s a very … it’s a small town in the middle of Long Island. Even
though it’s a small town, it has one of the largest public high schools in the country. When I went
… when I was there, it was one of the largest public high schools in the country, Sachem High
School. And since then they’ve split the school so that it’s two separate schools but one school
district. I graduated before … when I got my ranking, I was 30th in 2,500 students. But I only
graduated with a little over a thousand students. It was over a thousand students, like … That
was one of my big things; I always wanted … I don’t know, I never enjoyed Long Island. I love
my family. I have a wonderful huge family there. My mom was one of 17, so I have this gigantic
family there. But I never enjoyed … just the lifestyle and how busy it was and just … especially,
I think, maybe, it’s from my … from Sachem. Sachem’s a great school, but I was one of 40, one
of 50. I went into one class where there were like 70 other students in the class with me. And this
is in high school! And I played basketball all through high school. And I went to college to play
basketball. And it was a great competitive edge. But when I was in junior high, they had 12 or 13
spots on the team and there were 70 girls trying out for it. And I didn’t make it when I was in 7th
grade. 8th grade I made it. And then I worked hard, so I continued. But just the amount of students that were always trying out for your position, you were always reminded that there were so many other students that could take your spot all the time and I didn’t quite like it. But it did give me a competitive edge and taught me how to work hard even if no one’s watching. Because if no one watches you then you’re in big trouble.

[10:03]
When I … I guess … Yeah, when I was in K-12 … I never quite understood school. I didn’t understand the point of it. And I hated it. And … Yeah, I just … I couldn’t even tell time when I was in 4th grade. I just didn’t like school. And then 7th grade, they put me in a remedial track, where I wasn’t going to … I was going to take basic math. And my dad said, “No I don’t want Katie in the remedial track; I want her in the normal classes.” And they said, “We have too many students for Katie … to risk Katie being in that track.” So my dad took everything I loved away from me. He took my music. He took my books. He took all sports. He wrote the field hockey coach at the time and said, “Katie can’t attend practice until she gets out of this remedial track.” And then he sat down with my teachers and made this deal with them, that if I did so well on my homework and my tests and such, that I would get out of this track. So, I was like “OK”. So then he made a deal with me that if I did so well on each thing I would get something back. I’d get my art supplies. I’d get my music back. And so that was a very hard few weeks in 7th grade. I had to buy everything back. And once that happened, I was okay.

But then … I still wasn’t doing as well as, I guess, everybody wanted me to do. And when … when I was in 8th grade … 8th grade? Yeah, when I was in 8th grade, they put me … they had something called “voc ed”, where they put in a track they would help you get life skills — that’s what they called it — would give you life skills. So I was in business math, and shorthand, and typing, and everything that I still use today that helps me immensely. But … I realized that my sister was taking math and my friends were taking science and I didn’t take any of those classes. I wanted to take those classes. But my mom said, “No, because of how you’ve done, they’ve put you in this life skills track. So that means when you get out of high school, you can have a real job. You can be a secretary. It’s going to be wonderful. You’re going to get to wear nice business clothes and talk to people and help the country.” And I was thinking, “I don’t know if I want to be a secretary, Mom.”

So then my mom went up to bat for me. And my mom talked to my counselor and said, “Katie doesn’t want to be a secretary. She’d like to go into math and science.” So again they said, “OK, we’ll give Katie a chance. We’re going to put her in these classes and if she doesn’t do well, if the teacher doesn’t think she’s doing well, she’s going to be right back in the track.” So, that’s what I did. Then I worked really hard, because my mom said, “Do you realize this is your last chance? This is it. The counselors are done giving you chances. I’m done fighting for …” — well, she would never be done fighting for me — but there is only so much people will listen to you. So I worked really hard. And then I just kept going. By the time I graduated from high school, I was in honors and AP classes and getting … I got a partial academic and athletic scholarship to college. But just those time frames really put it in perspective to me. Even if I didn’t quite understand why I needed an education, I really had to do what they wanted me to do and work hard so I could keep going. But I’m not like … I’m not upset that I learned shorthand and typing, because it’s helped me immensely in college. In college, people are like “How do
you have such great notes?” Because I took shorthand [laughing]. Because I know how to type.

“How do you type so well?” Because I know how to type.

V: So by the time you got up into high school you were definitely taking preparatory courses for math / science. You knew that it was going towards college?

K: Oh yeah. Yeah. Yeah. I knew I … my mom always said to me, “You have to go to college.” But I didn’t understand why we needed to go to college. I mean — look at my parents! My parents are doing great. We had a house. They didn’t graduate from a 4-year college. I didn’t see the point.

But then as I was going in college … no, no, in high school … I started working harder and it became fun to learn. And then I had a few teachers in high school who said, “You’re really smart — you can do this. College isn’t going to be that difficult. You can get a scholarship.” And that’s the only way I was going to get to college. My parents had … we had no college account. Our parents said we had to pay for ourselves to go to college. And when you’re in high school and you see something like a $20,000 price tag (and now it’s even more, I know) but $20,000 … I’d think, “Oh, I’ll never be able to afford that!” And what’s interesting is my husband now, he’ll say, “Katie, we have to pay for our daughter’s college education.” And so I’m thinking, “Oh no, she’s going to pay for it.” And he’s said, “No, it’s an investment!” And I never thought of it … no one ever said to me, “It’s an investment.” But it is! You put in a hundred thousand dollars now and later they’re reaping rewards.

[15:31]

V: So, which courses during high school were your favorites?

K: Oh! I really loved math. I started liking math because I had a teacher, a Mr. Finta, who … he really took an interest in all of his students. Like he knew … we were in basic math and he knew I was a basketball player, so he’d do examples with basketball. And there were soccer players. And there were girls who were into buying clothes and couldn’t figure out how much their sales item was. So he always would bring these examples and he really cared about us. So, I really loved math because of Mr. Finta and after that it just kind of exploded.

Another … I loved political science because we had a professor [Dr. Barbara McAdorey] who taught at Rutgers and then would come and teach us one class during the semester. We were in her class during a couple of semesters. And she was very tough and really made us think about the world. The entire time that you’re learning world history, it’s just textbook. And then all of a sudden in political science she said, “Read this newspaper and tell me what you think. Who’s right here? And who’s wrong here?” And we’re reading actual academic papers in political science and that was a lot of fun.

And then my other favorite course was a course we had called Project Adventure, which was a course in building trust and doing trust activities, like trust falls, and doing … like a group leadership … the kind of camps that people go to now, but we had that as a full year class. I was part of an experiment in that class. So … one of our teachers was getting her Ph.D. And until my senior year, I’d never heard of a Ph.D before. I’d heard “Dr. Martin Luther King,” but I knew he wasn’t a real doctor, but I didn’t really know what that meant. That’s as far as I knew about a
Ph.D. And then the political science professor had a Ph.D. And then my Project Adventure
teacher was getting her Ph.D and doing the research on us to find out how Project Adventure
could help us. She had three groups. She had one class that had all Honors students. She had one
class that had students who were in a regular course load. And then she had one … my group,
who didn’t get along at all at first. It was Honor students and regular students and students that
were at risk for dropping out of school and not finishing. And we got interviewed. And they
tracked our progress. And by the end of the year — which totally went against what she thought
would happen — by the end of the year our group had more trust. We had less accidents. We
were really bonded and really were helping each other out. But it was … I think that’s like my
favorite experience from high school: it’s just giving people a chance. Because my first
interviews I’d say, “I’m not going to do a trustful activity with those people. They can’t touch
me because I have a future and they’re not going anywhere and they don’t care. They’ll let me
fall.” And then by the end, one of my best partners was one of those people that didn’t even want
to touch me. And I said, “Come on if he’s not belaying me, then I don’t … but if he’s my
partner, then that’s it!” So, it was a lot of fun.

V: That’s quite an experience!

K: Yeah.

V: You mentioned you have a sister. Do you want to tell a little bit about her?

[19:22]

K: Sure. My sister is Kimberly Smith. She was Moor, but she just got married. She is about two
years younger than me. And she … she did really well in elementary school. She’s one of those
people, I think, that can sleep on books and get answers or input. Actually, looking back on it,
she did really well in elementary school because my mom would just sit there and yell at me
during elementary school, trying to do homework and trying to learn stuff. And I had no idea
what I was doing. So she was kind of taking in all of my elementary tutoring from my mom and
dad. So, she blew right though elementary school. And then she started hitting problem spots in
high school, because that’s when I started figuring out how to learn. And so my sister is a very
oral learner. Without people reading it to her, she doesn’t quite … she has to work harder to learn
how to study. But she still graduated tops in her class. She … my sister’s brilliant; she doesn’t
even know it [laughter]. She’s like … she got into Harvard! And she kind of jumped around.
She’s a really sweet soul. She jumped around from college; it took her seven or eight years to
graduate with her undergrad degree. And she … she majored in everything from dance to theater
to pre-med to physical education. And then she graduated with a degree in Biology. And then she
went to NYU Nursing School for 2 years and became a nurse. So now she’s a nurse in upstate
New York at a neo-natal intensive care unit, so she deals with little infants all the time.

V: Have the two of you had interactions a lot over the years? You’ve stayed close?

K: Hmm; kind of, but not as close as we should have. I think my mom was the fabric of our family.
She connected everybody — my dad doesn’t like to talk on the phone. And so I would talk to my
mom when I was in college and my mom would tell me how Kimberly was doing and how my
dad was doing. And likewise, when my sister went to college, my mom would talk to her and tell
how everybody was doing. And then when my mom got sick, it was like the middle got ripped
out. And … yeah, so we don’t really communicate as much as we probably should — as much, especially, as my mom would want. Yeah.

V: So you’ve talked a little bit about the fact that there were definite expectations, that both of you would go to college.

K: Yeah.

V: Do you feel that your parents encouraged both of you equally? Was it fairly similar encouragement or … ?

K: Umh [laughter]. No. So, when I graduated … graduated 6th grade, my parents threw this big party for me. And then I later found out, because that’s … they thought that was going to be my last graduation [laughter]. They threw this big party for me! And I remember saying, “You don’t need this big party!” And they said, “Yes, we do.” Because they really didn’t think I was going to make it through.

And that’s why, even though my parents … my mom encouraged college, she was okay with me going in the secretary’s track, because she knew I would get some education and some job skills. Because that’s one thing that she felt like she had gone through, an Associate’s degree and didn’t have any job skills. She was always going around looking for jobs so …

But then, once I started applying myself and, I mean, at the end of junior high and especially in high school, my mom was very supportive. Especially in those times you had to … well, every generation has their own way of getting to college. But my mom would say, “What do you want to be this week?” And I said, “I want to be a lawyer.” So my mom would go to the library, or sometimes I’d go with her if I wasn’t playing my sports and doing clubs. She’d go to the library and go into this one database the library had of all the colleges that had law degrees. And then … I had rules. I wasn’t allowed to leave the time zone. I had to be within 2 1/2 hours travelling of Long Island. And there couldn’t be any kind of Greek system in my … in the university. So, those were pretty tough … places to find universities … Oh! and there couldn’t be more than 10,000 people. And so there’s lots of rules to … for me. My sister didn’t have those with my mom or she would have done that. But there lots of rules on the university I could choose. She was always going, “What do you want to be this week?” “I want to be an engineer.” So she’d find stuff on engineering and bring me back a set of things. So then I’d go and do the research and find out who the coaches were and mail them and such.

My sister, since she was … she was in the gifted and honors program right from the start everyone said she was very gifted and talented. So she was encouraged … there was always no doubt that Kimberly was going to go to college. But it wasn’t until I was in high school that my parents were “Huh, maybe she could do this!” But … and then I kind of manipulated the rules. My mom didn’t say driving; she meant driving, she didn’t say it — she just said travel. So, I chose the furthest away school that I could get away with 2 1/2 hours flying [laughter].

V: Smart!
V: So, in the end, what made you choose the path that you’ve taken? What were the early shaping influences that led you in the direction you’ve ended up taking?

K: Yeah. A lot of it is my relationship with my parents and my relationship with my aunt and uncle. They didn’t—my Uncle Frank and my Aunt Barbara—didn’t have children, and so they pretty much came over every weekend. They were there all day, we had breakfast, lunch, dinner with them. And my uncle was a computer programmer, computer engineering; he could do anything with a computer. And my aunt was a physical education teacher. And…just kind of seeing them with…My dad…even though my dad didn’t go to college, he was very interested in computers. When I was in 4th grade, my mom said, “Here’s some money, go buy a microwave.” And he came back with a computer. And I thought…the fight…I thought they were going to get divorced over that. And my mom is yelling, “Look at this glorified typewriter!” And my dad argued, “It’ll help the girls!”

And I guess that’s one thing I’m thankful for. Even though we didn’t have a lot of money, my dad was always said, “You can’t break it. Just play with it. You can’t break it.” And so I was taking apart the floppy disks and then I said, “Oh, it doesn’t work, Dad.” And my dad’s like “Uh, you didn’t break it. It just doesn’t work like that.” He never said I broke it.

And so my dad taught us all how to program the computer and made little games for my sister and I. And then my Uncle Frank and my dad would talk about programs and programming and computers. And I just wanted to be in that conversation, it was so neat. Especially because there was this glorified typewriter that my mom hated, but it was so cool. I could do stuff. I could draw stuff. And I just loved it.

And then, when I…then later in…actually, that wasn’t 4th grade, sorry. That was more like when I was in kindergarten or 1st grade. Because when I was in 4th grade, my Uncle Frank… I had to do a book report… I had to do a report on something, I had no idea what I wanted to do. And my uncle said, “Well, you like jewelry, right?” And I said, “Oh, yeah!” And he said, “And you like gold?” And I said, “Yes.” And he said, “Well, did you know gold is in microchips?” So I’m thinking, “No!” So he brought me to his work and he grabbed an old microchip and he took off the top and he showed me the strands. And at the time—I don’t know what they are now, but at the time, they were gold—and he showed me the strands. And he showed me the microchip. And he was telling me how it worked. And I just wrote my whole report on that then. I remember going to school and I had the microchip and I was showing them the gold strands. And all the other girls were excited—“Whoa, gold is in computers? That’s really cool!” It was just this kind of girlie thing, I mean—“There’s gold there!” [laughter]

And then after that, I would play on computers, but not a whole lot…because my school didn’t really have a whole lot of those. Around 10th grade, I was on a typewriter, and then my school didn’t have a whole lot. They had a computer programming class, but…it’s the same reason that it is today. My mom said, “You can’t get college credit for that”—like colleges…it would be better to get into college, according to the book she read, if I took another science or if I took another history class instead of computing. So I didn’t take computing.
But then as soon as I went into college, I knew that was my major. My major was going to be computer science because I wanted to be able to talk to my uncle and talk to my dad. And very rapidly, I went from not being able to talk to them to ... So that’s how it went from programming to ...

I also ... I guess my dad also made a program for me to type into the computer. I had wanted a piano and my dad made a program that I could type in and compile. And then every key on the keyboard made a noise, so it was like my piano. So I went from like programming — I didn’t program it myself — but typing it in, compiling it, and seeing what’s inside a microchip and wanting to talk to my uncle and dad about computers.

V: So, what’s the relationship of Frank and Barbara to your parents?

K: My mom and my Aunt Barbara are sisters.

V: OK.

K: And my mom’s one of 17. And so my Aunt Barbara is number 7 and my mom’s number 8, I think. And so they were close.


K: Yeah.

V: Wow. You mentioned one math teacher that had been very inspiring. Were there any other teachers? And the political science as well.

K: Right.

V: Any others that sort of helped you along the way?

K: Oh yeah. In 4th grade, I had a teacher, Mrs. [Gayle] Hertzberg. I didn’t know how to tell time in 4th grade. And my dad had a teacher meeting and said, “Katie doesn’t know how to tell time. She has to at least know how to tell time by the time she gets out of 4th grade.” And Mrs. Hertzberg said, “Oh!” So Mrs. Hertzberg, I remember, the very next day — and I wasn’t in that meeting — like the very next day, Mrs. Hertzberg asked me, “Katie, what time is it?” And I looked at the clock, “It’s eleven sixty.” And she said, “OK, we have to work on that.” And I was so embarrassed because everybody else was kind of laughing. And I thought I really did it right! I counted my 5’s until it went around. And so she really helped me a lot. My dad ... during that time we took my Aunt Donna in, who was my mom’s sister. She had some problems in college and decided to come home and my grandparents wouldn’t take her, so we took her and she lived with us.

And my dad got laid off from his job and was hired back on at the lowest pay rate possible. So we had no money and people were making fun of me because of my clothes — I wasn’t ... I had
like two or three outfits and I just had to wash them and wear them throughout the week. And so Mrs. Hertzberg, she pulled me over and she said, “Those kids are making fun of you, right?” And I said, “Yeah.” And she asked me why and I told her. And she said, “Well, my daughter has too many clothes.” So she would just bring in these bags of clothes and, fortunately, we were the same size. Well, that’s what she told me. But whatever. I got these nice clothes from her and she just really cared. Then the kids picking on me kind of floated away.

And she made sure that that I could tell time by the time I got out. And she just really cared. And she was just crazy. I just loved her. In the back of her room, all the books had different names in them. I was saying, “Oh, Mrs. Hertzberg, this isn’t your book, this says it’s Mrs. Weiner’s book.” Then she said, “Oh no, honey, that’s me.” And so, she was just … for 4th graders, now that I look back at it, I think, “Oh! I can’t believe she said that!” But for 4th graders she was just very open with us. She said, “I’ve been married five times. The first time you marry for love. The second time you marry for money.” And she just went through this whole thing about why … and she said, “And by the fifth time … you marry because he has something you want” [laughter]. And I said, “Okay!” And I went home and I told my mom this. And my mom is okay with it. My mom said, “Oh, she sounds great.”

So, Mrs. Hertzberg. Mr. [John S.] Finta (he’s my math teacher). And Mrs. McAdorey [the political science teacher]. Those are the teachers that kind of stand out from high school.

V: So then you had been studying which undergraduate institution you would go to very carefully with your mother over time.

K: Yeah.

V: And you ended up at Eckerd College.

K: Right.

V: Do you want to talk about making that choice?

K: Sure. So, the more that I’m in academia and talking to people, the more I realized I had no idea what we were … we had no idea what we were doing. I’m a first generation college student. We didn’t really know. My mom just knew I had to go to college and we didn’t know, really, what mattered for future … I mean, Eckerd’s wonderful. I’d recommend it. But even though I was interested in computer science, I knew that’s what I wanted to do, MIT was never on my list. None of these technical colleges were ever on my list. And no one had mentioned that maybe you should look there.

So basically what I was looking for was … I guess a large part of my problem was I needed a scholarship. I couldn’t go to college without a scholarship. My parents didn’t want to take out loans. So it was only what I could get in loans. I couldn’t get much in the way of loans. So, we basically looked at where I could get funding to go and who would let me play basketball and major in computer science. That was huge. And I went to …
I was a fairly good basketball player and I went on some recruiting visits to universities. And they would say to me, “Yeah, you can play here. But you can’t major in computer science. You can only major in business or communications.” And some of them had a couple of other majors. But none of them was math or computer science or anything like that. And I’m kind of thinking, “Well, I want to be a computer scientist.” And they said, “Well, you can’t play here. We’ve tried and it just doesn’t work out.” And so that really hurt and … but I knew it was possible.

So Kate Starbird—who is also here at Grace Hopper and now she’s getting her Ph.D. at Colorado, so we know each other—I haven’t told her this story, so maybe I should before you publish it [laughter]. So Kate Starbird was this incredible basketball player who was playing at Stanford at the time. And I remember watching TV and it said, “Major: Computer Science.” And I was excited—“Oh! She’s a Division I basketball player, who’s awesome, All American. Played in WNBA. And she majored in Computer Science!” And I was saying, “Mom, look, you can do this.” And my mom said, “You’re not going to Stanford. You’re not going to California. You have to stay in the time zone.” So I just went up and down.

I had a lot of … I went on a lot of recruiting visits. And finally I went to Eckerd, which was Division II. I was looking at some Division I schools. And the Division … Eckerd was wonderful in that my dad would wake us up whenever it snowed—and he went to work at 6am—or 5am, 5am—and he’d wake us up. And he’d say, “You have to shovel the driveway before I have to leave for work.” And I hate it, I hate the cold. And that year it just snowed and snowed. So tiny Eckerd College was recruiting me. And the coach said, “Well, I just got back from the beach.” And I said, “Ah! That must be nice because I just got done shoveling my driveway!” So she asked me what time my dad required me to shovel the driveway. And then she called me every time. She’d watch the weather report and call me every time it snowed so I had someone to talk to and avoid shoveling the driveway. And then she said, “Why don’t you come out for a visit?” I really wanted to play Division I basketball. But I said, “Sure! St. Petersburg, Florida. The pictures looked gorgeous. Sure.” And then I went there and I was all ready for them to tell me, “You can’t major in computer science.” And by that time I was seriously considering, “God, what am I going to do?” Because I need a scholarship and maybe I’ll try business and see how it goes or something. But I said to them, “I want to major in computer science.” And they said, “Okay.” And I said “Really? Are you sure? Because everybody else has told me I can’t.” And they said, “No, you can.”

So that was like my big decision, was that it was sunny, it was warm, and you have to … Another thing that attracted me was that I would get into the Honors program, which got me into a bunch of classes with Honors students, like being a part of a cohort of friends that would last throughout the years. And then they also had something called the Ford Honors Scholars Program, which the Ford Foundation had given Eckerd a sum of money to help create the new … the next generation of researchers and possible academics. So your sophomore year you apply for it. Your junior year they select you. They select 20 of the applicants. And then you’re together in this one class. The first year you learn about research, you learn about different techniques in research, why it’s important to conduct good research, ethical things. And then they also give you a stipend and a research project to conduct your own undergraduate research. Then your senior year is taught by the dean of the college and he teaches you about different things you can do after your Ph.D. And, at that time, my senior year [in high school], I was just
starting to learn that there was this thing called a Ph.D. and what it’s about. And then I went to
this college and they said, “We’ll train you to go on and get your Ph.D.” And I went back to
Long Island and I talked to Mrs. McAdorey and she said, “You really need to get your Ph.D.
You really need to get your Ph.D. in political science, but if you get in something else, I’ll be
happy with you too.” So I said, “Okay, well, I have these other schools where I can major in
business. And I have this other school that will give me a scholarship, let me major in anything I
want, and give me a chance to figure out if I want to do this Ph.D. So that’s where I’ll go!”

V: What an opportunity.

K: Yeah. It was a great opportunity. I mean I say I didn’t know about these other technical schools,
but I’m glad of the path I took. Because I think going to a liberal arts school helped prepare me
for where I am now. I do research in HCI, working with psychologists and sociologists. And I do
work in pervasive health care … excuse me, pervasive computing, which is systems-oriented.
And then I put that in the domain of health care. And I think because of my liberal arts
educational experience, I’m not scared of reading anything. You give me a psychology book, a
sociology book, the latest in diabetes; I’ll read it and I’ll figure out what it says. And I find that
my friends who are really from strict technical backgrounds say, “Whoa! Sociology? That soft
stuff?” Or “Oh, I’m …” It’s almost like they have some sort of superiority thing. And there’s
also this thought of, “I just don’t want to go there. I just don’t want to read about that other
stuff.” I love reading about other fields. So I think that helped me in my career choice.

V: So tell us about your undergraduate experience.

K: My undergraduate experience. I loved it. But now that I look back, now that I’m a professor
talking to undergraduates, I realize I had a really different undergraduate experience. So, I played
basketball. And I was an honors student. And I also was in computer science. And although
Eckerd said I could be a computer science major, most athletes aren’t. Most athletes are business,
communications — and I’m talking broadly here, but from my team, from … I was on the
women’s team and talking to the men’s team — that’s where the majors are. So there’s kind of a
lack of understanding of how much time needs to go into it.

So I didn’t sleep much at all. And it wasn’t because I partied, I had, like … Like my typical day
would be I … So if you start at midnight, which is like a typical day. I would be in the lab at
midnight. And I’d work in the lab trying to get all my — and I was double majoring at the time; I
was double majoring in math; I ended up doing a minor in math — but midnight I would be in
the lab until around 3am, trying to get all of my homework done in time. And then at 6am we
lifted, we had to go to the weight room and lift. So I would … sometimes, I would just sleep in
the lab, because it took me 15 minutes to walk … to walk … I would lose a half-hour walking.
So sometimes I’d sleep in the lab until 6am. Then I’d go and lift. And then at 7am, I had my
individual workout, playing basketball. So from 7am to 8am I did my individual workout. Then,
I’d run and go grab breakfast. And then I’d run to office hours. And then I’d have class for most
of the day. And then we’d have practice for 3 hours in the evening. And then I would shower,
grab dinner, and go back to the lab and continue working. Either the computer science lab. Or I
had to take a music class, which totally kicked my butt, I was in the music lab listening to
Chopin. Or I was in the math lab trying to figure out how to get Mathematica to create the pretty graphs I needed for my assignment.

So I was … that’s kind of my cycle. And basketball season lasts from August until end of March. So April and May were like — and I would barely survive during that time — and then April and May, I would … kind of catch up on sleep. And … and, well, we had the month of April off and then May starts pre-season training, so it was a little bit later, but …

I really enjoyed it. I loved it because it was incredibly challenging. I … being in the Honors program, I got to meet lots of interesting people and get great perspective. Being in the Ford Honors Scholars Program, doing research, was really wonderful. And I just really enjoyed the opportunities that gave me. And Eckerd’s fairly small; it’s … I think it’s about 4,000 students total, so it’s a lot smaller than my high school. So it was really nice to have relationships with my professors and know them. When I took computer science, there were only three computer science professors. Which made it a little challenging to get into grad school because you needed three letters of recommendation. There was only three! And … but … in some of the higher-level courses, you’d be one of four in the algorithms class. So really … you really got to learn the material.

V: Invaluable.

K: Yeah.

V: So were there any significant shaping influences or events during your undergraduate years that helped move you on to what came next?

K: Yeah. I guess … well, the biggest thing that shaped me was … my junior year I got kicked in the head playing basketball. And before that, I’d had a number of concussions and broken noses (which I found out are concussions, because your nose is attached to your head and if there’s enough force to break your nose, then it’s a concussion). But junior year, I got kicked in the head during a game and that was horrible.

I lost … I don’t recall any … a lot of the stuff that happened during that time — the time period surrounding that — and I don’t … I didn’t recall a lot of the last two years before that. So I lost a lot of my education because of my brain injury. And I think this is where it benefits going to a small school. All of the professors are kind of asking, “What are we going to do?” “What’s going to happen to her?” And the athletic department was pushing because I was awarded the Scholar Athlete of the Year for the Conference. And Scholar Athlete of the Year for the Conference cannot not graduate. She has to go on her senior year and graduate. And one of the biggest issues, too, was I was also in the running as one of the nominees for Academic All-American. And I had to play a few more games. And that we were trying to push to get me through those games. But with my head injury, I just couldn’t do it. I was seeing double. I was passing out. It was horrible.

[45:41]

So, my professors made this game plan for me of how we were going to recover. I was going to work at my own pace … They told me, “Okay Katie, you’re going to need extra time to get
through this semester.” Because this is right before … this is right in the beginning of the Spring
semester. They said, “You’re going to need extra time, so we’re going to give you the extra time.
We’ll work with you all summer long if we have to.” Which is huge because liberal arts
professors typically don’t — in our college — don’t work [on campus] during the summer.
During the summer they are working somewhere else or doing research… So they worked with
me all through the summer. I went through vestibular therapy so I could get my balance back
again. I went to a neuropsychologist to help me kind of stimulate short-term memory, hold a
thought in my head for more than a few seconds. And that’s also where I … the Palm Four …
Palm Five? … I think there’s a Palm Three and a Palm Five, yeah. That’s when the Palm Five
came out.

And my mom came to visit me to see how I was doing. And she came in and she was just
appalled because I had sticky notes all over the place to keep my thoughts. Whenever I had a
thought, I’d write it on a sticky note and stick it. My teammates would come over and write
numbers on my drawers and on my closet so I knew the order of the clothing I had to put on.
Thank God, it feels so foreign now, but figuring out: Underwear — First? Or second? Does that
go? Do I put on my shorts? … it just wasn’t there. And they helped me through that.

My mom came and she saw my dorm room. And she said, “Oh, I don’t know. You should come
home right now.” And I knew if I came home that was it, I wasn’t going to graduate. So my
mom said, “Ok, instead of these sticky notes, there’s this thing on TV where people write stuff
on this little computer. Maybe we’ll get you one of those.” So they got me one of those. And it
helped immensely. Now I had this ordering of my notes all of a sudden. And I was able to write
and figure things out. And write … and have reminders of when to go to class. My day was just
booked — OK, “This is when you’re walking” and it would go (Boop! Boop! Boop!). “Walk to
class” (Boop! Boop! Boop!) “Go get your lunch” (Boop! Boop! Boop!). And then I kind of
slowly worked through my classes.

And then my senior year, I did my Ford Honors Scholar research. And it was kind of hard
because I had lost some of my program, so I had to get that knowledge back. And, thank
goodness, at that time I was getting job offers, because I was interning at Lucent also at the time.
And they had offered me a job. And it would have been pretty easy to just go there to do what I
been doing in my internship, which was fairly simple: plugging up networks and making sure
they worked; testing out routers based on the user manual. And so … my professors said, “Yeah,
you’ve been doing research, it’s going well. You should go to graduate school so you can get
back some of that knowledge you’ve lost and see if you really want to do a Ph.D. and go on that
way.” So, that was the main reason why I also wanted to go on to grad school, just to get back
what I had lost. I had tunnel vision of my computer science knowledge, just so I could survive
whatever class I was taking at that time. It was really difficult, I … my senior year was very
hard.

[49:33]

V: So you’re doing the other work with Lucent as an internship. Was that the same as the
Ford research work that you were doing or …?

K: Yeah, it was connected. So, for Lucent I was working on how you can … kind of, testing out
their new routers, connecting up networks. And then my Ford Honors Scholar research was
looking at how we can administer a network, how can we make sure everything is up. So there is something called the Simple Management Network Protocol, SMNP. And I was looking at, “How can I ping … use these SMNP messages for — I used our Eckerd campus — and connect to these network devices and see how they’re doing?” And then give … and then visually show on a map to our network administrators … how the network’s doing, what router may be going down, which server has issues and such. So that was my Ford research.

V: Wow. So, during the time that you were at Eckerd, you of course had your cohort of people on the basketball team. So you had that as female connections. How many females were there in your academics?

K: [Laughter] Fortunately, since I was in the honors program, I had my honors cohort, which had women. Within computer science, I was the only woman. Well, I was the only woman when I started. My freshman year, I was the only woman within my class. And then my sophomore year, they hired Dr. Debure, who is a woman computer scientist. And then behind me there were two or three other women, because now there’s a woman. And, unfortunately, Dr. Debure got the standard female faculty assignment of “Oh, you’re a woman. You can help attract women. You’re going to be teaching Intro to CS your entire career.” But it does help. Because after that there were a lot more women who were even … I even talked some of my friends into minoring in computer science. But they only took … they were behind me and only took some of the classes. But I still got to see them in labs and tutor them and such.

V: So did help to have the women around?

K: Um … in college, since I had my basketball cohort of all women, it didn’t bother me as much. It didn’t bother me until I went to grad school that there weren’t women. Because I’d work in the lab with the guys and I was just one of the guys. And then I’d go and play basketball and I was one of the girls. And it didn’t bother me as much until graduate school, when I realized, “Wow, I don’t have any women friends … I’m in the CS cohort and I’m one of the few.”

V: Yeah?

K: Yeah.

V: So did you go directly to graduate school after Eckerd?

K: Yeah. It doesn’t show up on my CV, but I did. I went to University of Notre Dame for two years. I was awarded the National Physical Sciences Consortium Fellowship, which is a fellowship for under-served — oh wait, not under-served, but under-represented — groups to attend graduate school in physical sciences. And I got my NPSC fellowship and I went to Notre Dame. Again, somewhat blind about what this grad school process was. They were really nice to me, they thought I was a good fit. And I kind of went, not knowing what people typically look for in graduate school. So I went to Notre Dame.

And it was a trip, because Eckerd was so small and everybody knew each other. And then at Notre Dame, in the engineering school, I was the only US citizen computer science graduate
student who wasn’t married. There was one other US citizen female and she was married. And there were literally … these groups of guys who would follow behind me and not talk to me, just follow me. And when I stopped and looked at them, they would all stop. And then I’d walk. And then they’d follow me. And finally one day I said, “Why are you following me?” And they said, “Oh, because we want to talk to you.” But they had been following me for about two or three days. For two or three days! And I just wasn’t used to the attention and I was really desperate to find someone to be friends with and talk to instead of just having people following me and trying to talk to me. And I guess me being from a liberal arts school, I wasn’t really used to the engineering culture. I don’t know if that’s the right thing to say. But it was very different. I was very lonely. I’d program, and I’d work out by myself. And that was kind of the extent of it.

Until I met my husband. We met at Notre Dame and then I had little bit more of a life. But I didn’t have any friends anymore. Well, he was my friend. But I didn’t have this group of girls I could go out with anymore. And then I met some of the other women, who were mostly Asian, and … there were some from China and some from India. And I tried to create a women in computing kind of group there. But there were some cultural differences I hadn’t taken into account. So it didn’t quite work out. I ended up with a couple of friends there, but it was still a very lonely time. I guess what was a little bit different … I haven’t experienced this again, but the women that I met at Notre Dame, they were all married.

V: So did that have an influence on changing from Notre Dame to Indiana University?

K: Well, during this part in the National Physical Sciences Consortium Fellowship, I interned. So the National Physical Sciences Consortium Fellowship … the Consortium partnered academia with industry. So the deal is … the subset of schools associated with the Coalition would pay for my tuition or just cancel it out. And then my … and then the industry sponsor would give me a stipend during the year. And in return I would intern with them for at least two summers. So every … each summer at Notre Dame, I’d go and intern.

And when I interned … after my second year, my mentor said, “I don’t want you going to Sandia, I want you working right here on your Ph.D. research,” which was funded. “OK. Sure, I’ll do my Ph.D. research.” But then he didn’t get the funding he needed to fund me. And then he didn’t get tenure. So I went to Sandia. Then I quickly scrambled. And they said, “We’d love to have you back, please come back.”

So I went to Sandia and I was working on a project. And my mentor at Sandia said, “This is really good work.” I was working on the common component architecture for supercomputing at the time. And he said, “This is really good work. Why don’t you make this into your Ph.D. thesis?” And so I talked to my advisor — who was still my advisor — and he said, “No, I don’t really see this going anywhere. I don’t think it’s going to be useful.” And my mentor at Sandia said, “What? Does he know what he’s talking about? This is of course going to be useful!”

And so my mentor said, “I know these people at Indiana who we’re working with, we’re collaborating with. And they have their own kind of common component architecture. We have our Sandia common component architecture. We’d really these to connect together, but we just don’t have the time. So … but you could be the conduit. You could go to Indiana. You know
ours. So you’ll go to Indiana and talk with them and figure out how to get these two pieces together.” And I said, “OK. I guess.” And so he said, “Yeah! Let me make a call.” So he made a call and before I knew it, I was at Indiana.

And there was also another piece in this puzzle. This goes to that two body problem thing, is that after my first year at Notre Dame — I wasn’t married at the time, but Jeremy and I were dating — Jeremy’s advisor took a job at Indiana. So he went to Indiana. And we’d been doing a long distance relationship. So, when this happened, he said, “Why don’t you go to Indiana?” I was thinking, “Boy, you don’t even know that I like a guy at Indiana… I’ve been dating this guy at Indiana.” And so then I felt even better. “I’m gonna go to …” Because that was one of the things … Jeremy’s advisor talked to Jeremy that, “Does Katie want to come to Indiana?” after my first year. I said, “No, I want to stay at Notre Dame.” I don’t know what I was thinking, but, “No, I want to stay at Notre Dame. I don’t want to follow … I’m not going to follow …” I guess that’s it if I’m honest: “I’m not going to follow some guy around.” And he went to Indiana. And so then when my mentor started talking about this at Sandia, I thought, “I can get to Indiana on my own work.” But of course, that doesn’t happen. Because apparently when he made the call to Dr. Bramley and Dr. Gannon at Indiana, they said, “Hey Andy!” — who was Jeremy’s advisor [Dr. Andrew Lumsdaine] — “Do you know this person named Katie Moor?” And he’s said, “Oh yeah, let’s get her here. Then my grad … then they won’t have to travel four hours, or eight hours round trip, every other weekend to see each other. They can be programming side by side.” So that’s how I got to Indiana.

V: So you knew when you started at Notre Dame that you were going towards a Ph.D. It wasn’t first Master’s and then decide about Ph.D. It was pretty much a seamless …

K: Yeah, yeah. I was gonna go for my Ph.D.

V: OK. But you knew … did coursework at Notre Dame.

K: I did two years of coursework at Notre Dame. And I was working, doing some research with my advisor at the time. And then when I went to … when I transferred to Indiana, I was very close to my Master’s at Notre Dame. And I talked to professors at Indiana and they said, “Oh, hmm. If you want to finish in three to four years at Indiana and get your Ph.D., it would be better not to take the Master’s from Notre Dame because then … because of transfer rules.” If I get a degree somewhere else, I can only transfer so many credits. But if I don’t get a degree somewhere else I can transfer in a whole lot more. So I said, “OK.” So I went to Indiana with all these credits and had to work to get them accepted. And I ended up … like I said, it ended up taking like two years to get my Master’s degree at Indiana. But it all worked out. Yeah.

It was kind of a stressful time because so much was happening so fast. There was this opportunity, I decided to take it and figure out what to do with it.

[60:32]

V: So when you got to Indiana University, you were in an established group. You knew the work you were going to be doing. You had Jeremy there. So that part of life was happy. And so you settled in pretty quickly and …?
K: I did. There’s just something about …

I guess another thing, too, is when I was at Notre Dame … I love Notre Dame. It’s a beautiful campus. Great traditions, really. Just goes back forever. But it’s very conservative and very bubble-like. It’s like there’s this golden dome and it just surrounds the whole campus. You never go outside the campus. Outside campus isn’t very nice, not a very good area. So just this golden dome and that’s it. That’s where you stay. And as an undergraduate I can see that being fun. But as a graduate student, you wanted to branch out.

And they have something called parietals, where — they aren’t called piranhas, they’re called parietals — where it’s something … Every dorm is same sex. And the parietals, they … after a certain time at night, the other gender can’t be in there. And in the morning there’s this certain time, in the evening and in the morning, that different genders can’t be in the same room together. (Because you only have sex at a certain time during the night … at least that’s what it seemed to be about, I don’t know.) But I was talking to some of the [female] undergraduate engineering students who were struggling in the class I was TAing. And they said, “Well, that’s because all the guys study in their dorms and we’re not allowed to hang out … we’re not allowed in their dorms when they’re studying. We only study with them for half the time and then we have to go back to our dorms and study alone.” So I was able … I talked to a whole bunch of people … I was able to get a study hall in the engineering department that was lights all on. There were nice chairs. And it would be open 24 hours a day for people to study together. There was just all this … all this … I just didn’t thrive there [at Notre Dame] very well. Indiana was a little bit more liberal and free-thinking. I just thrived there.

I had a group. I really liked being in my group. I had supportive faculty. And what was nice, too, was that at Notre Dame we had one female faculty. And I said I wanted to start a women in computing group. And she said “That’s nice.” And that was it. When I was at Indiana, I said, “I’m going to try this one more time. I want to start a women in computing group.” And they said, “We do, too. We’ve been trying to.” And then … all of a sudden I had Suzanne Menzel and Beth Plale and Kay Connelly … And those were the three immediate … and there were all these other faculty from informatics and from SLIS that came in, too, that were like: “Yeah! If you want to do it … you want to jumpstart this, we’ll support you.” And it was so great! And all these other women … I was kind of shocked. There was this woman from China, especially after my experience at Notre Dame, I was a little bit leery, but they were all, “Yeah!” And it was just a different population. And all these women just came together, and wanted to be together, and wanted to see that they weren’t alone, and it was very cool. That was my first … my first year I started, right off I had this group, and I had Jeremy. And also I had … I had my cohorts — I had my girl cohort, I had my research lab, and Jeremy’s research lab. So, it just worked out nicely.

V: Much less lonely.

K: Yeah, much less lonely. Yeah. Yeah. If anything, I was too busy.

V: But you no longer had sports going on at that time.

K: Yeah, I didn’t have any sports going on. Right.
V: You mentioned being a TA at Notre Dame. So let’s talk just a little bit about your teaching experience while going to school. Did you have any teaching experience as an undergraduate?

K: As an undergraduate, part of the Ford Scholar program was that I had to help with development of a course and help … and lead some teaching. So I helped develop a networking course with my mentor, Dr. Ed Gallizzi at the time. And then I had to teach a few of the classes for that. But he really helped me out. It wasn’t that much work at all. It was really fun. Like finding all these books, figuring out which textbook we were going to use. Kind of mapping it out. And so …

[64:59]

V: So, really working a lot on the content and structure of the course.

K: Mm-hmm, right.

V: And you had direct contact with the students?

K: Mm-hmm, yes. I had to help … I had to … I was kind of like a TA, I guess, in that sense. Whenever they had an assignment, I helped Dr. Gallizzi with the assignments. And then they would have to come and do their assignments in front of me for their grades. And I taught them … and then I taught two of the classes.

V: Were actually lecturing for them.

K: Yes, lecturing for the classes.

V: How fun. So you were about a senior at that time?

K: Mm-hmm. Yes. A senior.

V: And these were students at what level?

K: They were … this was during winter term. Eckerd has an odd structure. We had two main semesters and then there’s a third semester. Freshmen take it in August and sophomores, juniors, and seniors take it in January. So the next thing is — the freshman semester is called Honor Term. It’s so you get used to the college, you get used to college life, you take one class during that time, and you get over your homesickness before all the upper-classmen get in. And then winter term is this great experience in which you take one class, you get to really dive in deep … or, I don’t know, some people party, but I liked it because it was one topic and you just kind of focused on it and got to work on it in small classes with a professor and do some research. So this networking class was in the winter term.

V: OK. So that was one month during January.

K: Mm-hmm.
V: And so then you graduated in May and started immediately in the fall at Notre Dame?

K: Yeah. Well, I … my whole life has been kind of quick in that … Yeah. So I graduated in May. I drove to New York and … I drove to New York in two days. And then I was home for a day. And then I flew to California to start my internship. And then I flew from California to Notre Dame. My parents met me with my stuff. And the next day I started graduate school [laughter]. This is how I kind of plan my life.

V: It fits together like a puzzle.

K: Yeah, it either goes bad or … I remember when I flew into Chicago from California. And they cancelled … or they delayed my flight to go to South Bend. And I needed to get my keys to get into my dorm room in time or I didn’t have a place to stay. So I ended up renting a car and driving so I could get my keys on time.

V: Interesting. So when you started at Notre Dame were you a TA immediately?

K: No, since I had the fellowship, I didn’t have to TA. I TAed my … the second semester of my second year, because they said, “In order to get a Ph.D., you have to TA two semesters.” So, at that time I didn’t know I was going to leave. So I said, “OK! I’ll get one of my … I’ll do one of my TA slots.” And Dr. Peter Kogge, who’s a really well known architecture professor, was teaching Architecture II at the time. And he said, “Well, if you’re going to pass your qualifying exam in architecture — you’re pretty weak in that.” I said, “Yeah. I know I’m pretty weak in that. I took that my sophomore year, so I don’t remember that much of architecture.” So he said “Well, why don’t you attend class … why don’t you be my TA for this class. And you’ll attend class with normal students. And you’ll take the tests. And you’ll do the labs before the students do the labs and such.” So I pretty much took that class as a class and had a lot of fun with it.

V: So that really met your goal of relearning the things that you had lost after the head injury.

K: Oh yeah.

V: Wow! That was good. And so you just did the one TA semester?

K: I just did the one TA semester.

V: OK. And then, once you got to Indiana University. Were you a TA at all?

E: No, I didn’t TA at all. But I did … my advisor, Kay Connelly, she’s a junior faculty. I had a fellowship — she wanted me to research and publish as much as possible. But I did go out of my way to create opportunities for me to teach. So Suzanne Menzel, who is an instructor at Indiana, created … well, she got Indiana to be a site for JETT — Java Engagement for Teacher Training, which is a part of the ACM — I don’t think it’s JETT anymore.

V: It is part of the CSTA, I think, Computer Science Teachers Association.
K: Right. Part of CSTA now. So she said, “I need volunteers for JETT. I need volunteers to teach high school teachers how to teach Java.” So each year I would volunteer and create a lecture and teach high school seniors. And my advisor didn’t really mind, which was nice.

V: High school teachers.

K: High school teachers, yeah. And then I also created … when I … in the Women in Computing … when I started the Women in Computing group, Beth Plale said … Beth Plale was able to get us some money from Microsoft to start up. A little bit of money. And she said, “We pretty much can’t get any more money until we show them that we’re good. For the community. We’re good for the discipline. We’re doing something.” So I’d just read Unlocking the Clubhouse and gotten really interested in Carnegie Mellon’s road show. So I created kind of our own roadshow, called Just Be. We went to high schools and taught students about computer science and got them involved in hands-on activities and such. So I started that program. And so we’d visit … I would probably visit about 3 or 4 schools a year. And from that we would go from the start of school and teach every period. Yeah, I tried to make opportunities for teaching.

[70:52]

V: So are there any other special things to talk about in coming through the Master’s and proceeding on to the Ph.D.?

K: Yeah, I guess, when … my past has been kind of odd in that my … when I went to Notre Dame, I thought I was going to reinvent the Internet. I was going to revolutionize IPv6. And then, as I went through, through Sandia, I did some high performance computing. And for one summer they said, “Katie is a real leader. We want her to be the lead student in the Embedded Reasoning Institute,” which was a new institute that they created. And they said, “Look! What we’re going to do is give you some sensors and some little processors. And we want you to … and this new piece of equipment that would test the air … the quality around you and tell if there are chemicals. We want you to sensor soldiers in the field and let us see how this gas leaking is affecting their heart rate, affecting the health of the soldiers, and if there is any gas, how it spreads among the soldiers. So I was the lead student and we got some … we got a great group of students. And we created this prototype system. And we got to test it. And I really loved it. I really loved the human computer interaction, the pervasive computing, and the health component. I thought that was the coolest thing.

And then I went back to Notre Dame and continued doing networking stuff. And then the following summer I did this common component architecture, which is supercomputing. But that Embedded Reasoning Institute experience, I just really loved it! And while at Indiana — my first year-and-a-half I was doing the supercomputing research — my mom got sick with cancer. And I sat down — I’d just come in — I was in the hospital with her and she was wearing all these clunky devices. And I’d ask what kind of medication my mom was taking. And they’d say, “Oh! That’s in the manual … that’s in the pill manual.” There’s this one book, this one binder, that they’d get. It was like, “Oh, technology can help so much in this environment!”

And at that time, I really … I was having fun at Indiana, but I wasn’t really loving my research as much as I should. And so I came back, after being with my mom, and I said to Dr. Bramley, who was my advisor, “I really want to do health care. I really want to do technology in health...
“care.” And he said, “Well, I don’t do that, but there is this new junior faculty who really wants to work with pervasive computing devices, maybe you should go talk to her.” So I said, “This is what I want to do.” And she said, “Great!” So then I jumped ship and caught up with the reading. And she helped me work with some nurses in Indianapolis at the Indy School of Nursing. And then I just took off on this dialysis project that became my dissertation. So I kind of went from networking, to supercomputing, to health care and health informatics.

V: So, how long did it take you once you had started on that path to finish up with the Ph.D.?

K: It took me about three years. It was a difficult three years, but it took me about three years. It took me about, probability a year to get caught up on all the literature and create a common lexicon with my collaborators in the nursing community. And then it took me — and in that time, in the latter part of the year, they actually let me get in with the patients and talk to them and figure out what technologies would be useful for them. And then I started designing and implementing. And then the latter part of the third year was evaluating. And I was writing throughout, so it was pretty easy to get my dissertation done at the end.

V: So you’re finished with your degree. Jeremy is still working on his or finished earlier or …?

K: Jeremy finished the year before me. And my last year, when I was writing and interviewing, he took a postdoc at Rice in Houston, Texas, to work with Walid Taha and Ken Kennedy. So that was a little bit difficult to have a … to again have a big distance between us.

[75:18]

V: And you were not married at this time?

K: We were.

V: You had gotten married while you were still in graduate school.

K: We got married in 2004, the year after my mom passed away. My mom passed away in 2003 and we got married in 2004. And then in 2004 he … actually in 2005, we were married for a year … and then he took his postdoc at Rice.

V: So did that help or hurt your focus?

K: Mmm … both [laughter]. At first it was hard. And then … Jeremy and I are both very driven. And we drive each other and … I don’t know, sometimes too much. Sometimes we forget to have a life. But … that’s why we have a child and now she reminds us [laughter]. But Jeremy … I wasn’t progressing very well. And he said, “If you don’t finish this year, then we can’t be on the job market together. If we’re not on the job market together, it’s going to be more difficult to get two positions. And we’re not going to be together. If you want us to be together, the ball is in your court. You have to finish.” I’m sure if you asked him, he would say he wouldn’t say it like that. But that’s how I heard it. It was my responsibility to finish. And so once that was on the table, that we might not be together soon, in the near future, if I don’t finish, then there was absolutely nothing that was going to get in my way of finishing.
V: So did you start the job search while you were finishing the dissertation?

K: Yes, we started the job search while I was finishing the dissertation. It was very difficult because … for us … easy and difficult. Because if you’re in the same field, what school wants two people in the same field in the same search? Not too many probably. But since we’re in different fields (Jeremy’s in programming languages and I’m in HCI and pervasive computing in the domain of health care) then it was easier, because schools may think, “Oh! Yeah! We may need a programming languages guy.” But what was harder was that the schools. He was choosing schools that were really good for his area and I was choosing schools that were good for my area and some of them were just totally distinct, not quite working out together. Another thing was, since we had to apply to both schools, talking our letter writers into writing to the schools — I think … we must have applied to over 30 schools, I think, for this job search — so asking letter writers to take the time and write those letters was a challenge. My advisor was wonderful. She even went out of her way and said, “If you don’t want to write the letters, just give me the letters and I will mail them out for Katie.” So she really went out of her way to help me.

V: And so did you have several that were top contenders as you were making the decision where to end up?

K: Yeah, we did. And so it was difficult. I mean, I had gotten an offer from the Georgia Tech Research Institute, which is really a great place to be, very innovative. And then Jeremy had gotten some offers from industry in California and in Boston. And our family — Jeremy’s family is in New Hampshire, mine’s in Long Island. And then we got … then I got an offer in Colorado, which is our dream place. We’ve always wanted to go to Colorado, especially to live here. So we decided to go with Colorado. But it was a hard decision because they had a tenure track position for me. But for Jeremy they only had a research faculty position for him. And that means title only. They would give you a title, an affiliation, and an office, but you have to bring in your own money. You get no health care and no benefits. It was incredibly difficult for Jeremy to say, “Sure, let’s go to Colorado,” when he had other offers. And in California I could have worked at Sandia, who had sponsored my fellowship, and he could have worked at his job. But we really wanted to try academia and we love Colorado, so we decided to go out to Colorado.

V: And so you were here in … ?

K: We started in 2006. And we talked to a lot of people. We got a lot of great advice from outside mentors, saying … well, we said, “What should we do?” And they said, “Go on the job market again!” Someone had told Jeremy — and of course they told him on Valentine’s Day, which totally ruined our meal — “If you walk on water for five years and Katie gets tenure, we’ll consider giving you a tenure track job.” And one of our mentors said, “No, Jeremy, you can’t be a research faculty for five years, because once you’re a research faculty for that much, nobody else is going to say, ‘Sure! Come be a tenure track here.’ You have to get the tenure track early.” So we did a job search again. And again my mentors and letter writers were wonderful, writing all these letters. It was very targeted though. We would go to conferences and talk to people and say, “We want two positions. If you don’t have two positions, then it’s not helpful.” So, it was very targeted. We only applied to three schools. And then it was very hard for Jeremy, because to
get some teaching experience, he was also teaching, but the teaching segment wasn’t as much as
what a regular faculty would make for teaching class. But he was teaching.

And we interviewed and we got two offers. And this was hard, too, because I had gotten
pregnant early on in the year. And so I was interviewing when I was 7 or 8 months pregnant.
And then, when we were negotiating between Colorado and this other university, it was very
hard, too, because it was very close to our family and our family was chanting, ”Go! Go! Go!”
And we had a baby on the way. And at the end, Colorado came through and said, “We’ll offer
Jeremy a tenure-track position if he goes into the computer engineering department. And here’s
what we offer.” And we love Colorado, so we said, “OK, we’ll stay.”

It was hard because … what was really difficult, too, was … Colorado — I’ve read a stat, has …
I forget where it was — but Colorado has one of the highest percentages of research faculty in
the country. And someone had told us, “I think they’re just trying to make an example of you.
Because we have a few faculty in our department where the men got tenure track and the women
got research faculty. And they continue to get research faculty positions.” And so I think here
they were saying, “Well, look. We did it to … it’s not just women, we did it to this man!” But
then, because we played hard … OK, some people think we played hard ball. Then some of the
other faculty were “You shouldn’t have done that! You shouldn’t have gone on a job hunt your
first year! It looks like you don’t have any kind of allegiance to anybody.” And I can see that.
And then it also affected my relationship with some of the other … with some of the faculty,
because they didn’t think we did the right thing, with being … And it is not like we were
negotiating salaries horribly. We just wanted two salaries … we just wanted two tenure-track
positions. We weren’t trying to be bad about it.

It was hard on our marriage, too. Every time I’d say, “Oh, my God, I have so much to do!”
Jeremy would say, “At least you’re tenure track!” That was the end of every argument: “At least
you’re tenure track!” And … it was really hard on him. I can’t imagine … If it was the opposite
way, I don’t know how I’d handle it, I think I’d … He was wonderful for the stress he was under.
But it was really hard on our marriage and we couldn’t do that.

V: And especially with your daughter on the way.

K: Especially with my daughter on the way!

V: You needed to get everything solved and be happy again.

K: Yeah [laughter]. We made our final decision about three days before she arrived.

V: Oh my!

K: Yeah.

V: So, your first year was the stress of a starting a new job, plus figuring out if you were going
to stay there. Plus, becoming pregnant and knowing that life was going to change because
of that.
K: Right, yeah. Not recommended, don’t do all that [laughter].

V: OK. And so then you started your second year. Much more settled.

K: Much more settled. What was really … what was difficult, too, was because, since I hadn’t been at CU for a year … for a whole year, I didn’t get a lot of the maternity leave … well, I didn’t get approved for the maternity leave that CU had, so I only had my vacation to use, which was two weeks. Then I was expected back. And I did. Two weeks. I was back. I was back and forth and back and forth, running myself completely ragged. Trying to nurse my daughter, learning motherhood, and such. Fortunately, it was in summer, so I just had one research student and a grant to deal with.

[85:13]
Yeah. And so … but then, fortunately, because I started on August 1st the year before I finished my dissertation — I defended on July 26th and I started August 1st, so again, I’m really big into no breaks — so since I started on August 1st, I said “Hey!” … CU had just passed a new rule which said if you adopted a baby or you had a baby, then you get one semester off of teaching. So I said, “Oh, hey, August 1st? I start August 1st. The semester doesn’t start until the end of August, so I should get that.” And they agreed. So I didn’t have to teach the first semester of my second year, which was wonderful since I had two Ph.D. students, and two Master’s students, and two undergraduate students doing research with me. And a new baby. So I was doing research and taking care of my daughter. And we had a nanny for a few days a week helping out with her. That didn’t work out, but then we had another wonderful nanny. And then my … so I was barely surviving then. And then my … then I got my January review, because we get our reviews in January, and it wasn’t very good because I didn’t publish enough. And I didn’t. I had to publish more. I’d gotten some research funding, I did way too much service, I had to publish more.

So … but Spring semester of my second year, I really worked hard on publishing. And I think some of my teaching suffered because of it, but I was told, “As long as you don’t stink, it’s fine.” And I hate that. I really don’t want to come off with, “As long as I don’t stink, I’m fine.” I really want to give the students a great experience like I did when I was at Eckerd, I had a really wonderful experience then. But I worked on research. And then …

This summer, around July, I nearly … I just was really mean. I was getting two or three hours of sleep a night because I was writing all the time and taking care of my daughter. I wasn’t … I guess I just wasn’t being good at anything. And so my husband said, “You really need to sleep. We have to figure something out.” So, now I have more day care. I have more childcare. So I can work more during normal days. Because I wasn’t saying, “Oh, yeah, no problem. I’ll just …” I used to spend two days a week with my daughter and I’d make it up by working at night. I was working until 3am or 4am in the morning. I mean, everyone has been there, it’s just part of the deal. But then my daughter would wake up at 6am in the morning and that’s a little more difficult.

So now I am working on having a more balanced life, I started biking to work. And it’s not that bad. Driving to work takes me 30 minutes, but it takes me 7 minutes to walk to my office. And
biking to work takes me 34 minutes. So I save time and I get to exercise. And I’m trying to get at least four or five hours of sleep a night. I know, it is just a rough time period. As soon as my daughter gets a little bit older, things will … get better. That’s what I hear, maybe [laughter].

V: So it sounds as if the push right now, as far as your career is concerned, is on research and publishing.

K: Mmm-hmm.

V: Let’s talk about the teaching, though, a little bit. Have you done any research related to teaching? Where do you see your teaching fitting in to your career right now?

K: So, one of the nice things about Colorado is they … my teaching assignments are very closely related to my research. Next semester I’m teaching freshman, but everything I’ve taught before then has been upper level undergraduate students and graduate students — like interface design, and medical informatics — everything has been very closely tied to my research.

And … I did get to do some research on teaching, especially the summer I wrote my CAREER, NSF CAREER, award. It was enlightening! I wish I had some type of seminar or something on this, or someone said, “Read this!” Because I’m used to … I tutored and TAed for students close to my age. But this new generation of students is completely different. They call them Millennials. And they use social networking sites. And they’re just very quick [snapping fingers several times]. And if they’re bored it’s not going to happen; they’re not going to do it, no matter what. And I just wasn’t used to dealing with that kind of students. But reading about this and finding out, “Oh, OK. But yeah … these are my experiences. This is what happened. And here are some ideas of how to bring them into teaching. Bring in more interaction to the classroom. Bring in … Let them bring laptops. Let’s do some social networking site research here. Let’s look this up right now during class.” That’s helped a tremendous amount.

[90:32]

So I’ve been working more on, kind of, interactive classes and bringing in my own research experiences. And giving them problems. Like a lot of times, especially in medical informatics, I go and meet with doctors and nurse researchers. And they’ll say, “We’re having this problem. People are doing X and we want to help them do Y.” And so then I tell them, “Oh! Can technology help with this?” And so now I just bring them to my class. I have my ideas. But I bring them to my class and say, “OK. So I’ve talked to you about X, now here’s the problem that was proposed … that someone just told me about just last week. Can we fix it? Can we help it? How can we enhance it? What’s going on here?” And then they break out and think up some ideas. And so, it’s been a … this year has been a lot more … easier for me to teach, I think, than the last two years. Because the last two years I was just expecting them to be the students that we had eight or ten years ago, when things have changed so much more.

V: That’s interesting to hear that you, as a younger faculty member, would also experience that so dramatically.

K: Oh, yeah.
V: Really helps illustrate how quickly the field is moving.

K: It’s changing a lot. Because when I was in … when I was at Sandia, I remember I was chatting. I was chatting with another intern. And my boss came in and said, “Turn that off.” And so I turned off my chat application. And then I didn’t really know what to do. Because we’d been using chat so long to communicate with each other and talk about problems, “Hey, this code is doing that; what do you think?” that it was this whole lifeline. And he said, “You should just have a meeting with that person.” That never clicked with me, to go meet frequently, so it was very odd.

But so, the last few years, I’ve been saying, “Computers off. No Facebook. No YouTube. Nope!” And … and then, reading this kind of material, and going, “Wow, that’s the same experience. I just did that to them. This is the way they communicate. This is the way they’re thinking about their ideas and sharing information.” Not all of them. Some of them were there just to see the status updates of their friends and think of something kooky to say. But, I mean, a lot of them, though, are using that as information sharing, so I can’t … instead of just closing them off, I actually signed up for Facebook and figured out what’s going on.

And I think it’s helped my classes. My students love that I’m on. And since I do status updates, they know I’m working, they see how hard I’m working. And then they don’t come in saying, “Oh, I didn’t have time …” They know … one of my students said, “Wow, I saw you were up at 3am working, writing a book chapter.” And I said, “Yeah.” And so he said, “OK.” And I went, “Well, where’s your homework?” And he said, “I just … I didn’t get time to do it.” In a sense he said, “I’m not going to give you an excuse because you were up at 3am working.” So they see you working around the clock and I … when I’m working on my classes and such. So then they’re a little bit more thinking, “Oh, OK. No excuses. This is just what you do …”

V: So really just opening up more communication lines. And they see you as more of a real person, maybe?

K: Maybe. I know they’re still surprised when they see me outside the university. But yeah, they get more of a sense of what’s needed to get to the next level, what is my work style and such.

V: So, do you have a teaching philosophy?

K: A teaching philosophy. Wow! I did in my teaching statement, but it’s hard … but it’s changed so much! I don’t know … no, I don’t know if I have a teaching philosophy yet. It’s kind of morphing. I think a lot of it, too, is … like I said, because I’m a young faculty … It’s changing, too, because some of my students have views — maybe it’s the classes I teach — are older than me. So I used to … so my philosophy was I want to bring the world into the classroom, give them real-world problems, and teach them how to think. Teach them how to think of the problem and give good solutions for it. And now … now since I have these older students in my class, who have a whole lot more experience than me — they’ve been in the industry since before I started in college, some of them — now, I ask, “OK, well, what’s your experiences? So, why don’t you share with me?” And I guess, though, we’re all learners. We’re all going to learn together in my classroom. But, yeah … I guess I’m to have to narrow down my philosophy a little more.
[95:10]

V: But it sounds … I like that idea of everybody learning together in your classroom. That you’re able to put that on the table and be forthright with it.

K: Mmm-hmm. Yeah. And I think that’s another thing that kinds of makes me … it’s hard, right? Because I’m a young, female faculty in computer science. So sometimes students say stuff to me that … and I talk to my husband. He says, “I don’t think a student would ever say that to me.” Some excuse, some statement, some line. Just because I’m a female faculty they think they can get away with it, maybe? But … so, by putting myself out there and saying, “What do you know? Why don’t you share something?” I don’t know, all of … everything kind of puts me out there a little more.

V: I expect you’d hold your own, Katie.

K: Yeah [laughter]

V: So, do you have any particular stories to tell about any of your students or any of your classes?

K: [Whispered: Yeah, I must.] I think one of the neat things, too, is … because of my upbringing, I think a lot of times … My parents were incredibly smart people, they just didn’t have opportunities. And so I think if they … if we did have the technology we have now for distance education — all my classes are distance education, because almost everybody has the opportunity to get an education — and I think if we had that my parents could have taken classes any time. Watched a video while we were sleeping, and done some work. And so one of the neatest things is … in my medical informatics class, one of my distance education students really loved it. And he said, “You know what? I’m thinking of a career change.” He said, “I think I want to do consulting in this medical informatics field.” And I said, “OK, you’ve taken one class in this. And now you’re talking about making a business out of it.” I was kind of worried for him, but he was really excited. And he was in North Carolina. So he came and met with me and we talked about ideas. And I introduced him to some of the doctors I know. And he graduated with his M.E. and he started a business and is now consulting with some of my collaborators and really taking off on his own. So I think that’s kind of interesting.

Another thing that I teach is interface design, computer human interaction. And in engineering … in computer science within the school of engineering, it’s very soft. That’s the soft side of computing and nobody wants to do that: “Interview … talk to these dumb users and find out what’s wrong with them?” They don’t want to do it! So I had a couple … I had two students, who, they just … they were there because they had to. They had to fulfill a requirement and they were going to take it. And they thought it was going to be easy and such. And so they just gave me a hard time. Every time I said a statement they were questioning it, “Why isn’t it just a dumb user?” And by the end … by the middle of the class, their questions became more interesting. They were questioning the methods instead of “Why.” And then, by the end, they were … they said, “Well, we’re not going to do this, but now we know it’s here and it’s interesting.” And one of them got into the Android competition for the Google phone. And he said to me. “I really need some help. I need to think of this user study, because I have to win this. And I need to think of
the user study, and think of how the icons look, and figure it out. But here are my issues, you
know.” Google doesn’t want everybody looking at their internal code. And so we created a
protocol for him. We created a letter to send to Google to get them to give him permission, based
on participants signing the [informed consent] forms and NDA for the user study. And he ended
up in … really high up in the competition. I thought it was really neat how he went from “This is
junk!” to “I need to use this so I can succeed at my goal.” Yeah.

V: You have a record of having brought in some grant money, either on your own or as a Co-
...
K: Co-PI?

V: … PI. Do you want to talk about that process?
[99:40]
K: Sure. My first day on the job at CU, the dean called me in for a meeting. And he said, “I expect
you to bring in X amount per year.” And I said, “Okay.” So I went into my office. I closed the
door. And I just started writing: just brainstorming ideas, looking up grants, figuring out where I
can write to get this amount of money per year so I’d do okay. And right … then — this is the
sad part; I really need to get a life sometimes — the moving guys knocked on my door two days
later, and they said, “Where do you want these?” and they had three or four boxes. And I said,
“Put them over there.” And before I left for Grace Hopper, I realized these boxes are still stacked
there! Maybe I don’t need that stuff, maybe that stuff should be thrown out. But I think there’s
some things I want in there. But I still went, “Just put it over there” and just kept writing.

One … one of the best things, I guess, I learned at Eckerd and Indiana is just give a chance. Send
an email, introduce yourself, get in the door, get a meeting, get five minutes of their time, tell
them what you’re capable of, and see what happens. So in that two-day period I looked at all of
the research coming out of the Colorado Health Sciences Center, which is affiliated with the
University and … you know, a whole bunch of them. Got some emails back, set up meetings,
went there, told them what I could do. And a few of them said, “OK, yeah, we’ll work with you.”

So I was fairly lucky that this first grant I wrote with Steve Ross, who’s a close collaborator of
mine, we got funded, but it was less than a 10% accept rate, so it’s a really competitive grant.
And it’s part of the Robert Wood Johnson Foundation, so it’s not traditional money, it’s outside
money, but still fairly competitive. And one of the nice things about this grant was … it wasn’t
really well defined. It pretty much said, “Make a personal health record for the future,” whatever
that means. And “make it user-centered.” And “talk to users and find out what they want and do
it.” And, we kept having … unlike other grants, too, we would have these meetings. Every three
months we’d meet in Nashville, Tennessee, with all the other grantees and discuss what we were
doing and figure out where the grant should go. So the grant kind of morphed. It went from “Do
what you want” to “Let’s look at usability issues,” “Let’s look at interface components,” “Let’s
look at interconnectivity between these personal health applications.” And it was a little bit
stressful, because each time we had a demo deliverable.

And … but, from that, though, since we had all these things happening to collaborate with the
other grantees — we’re working with Vanderbilt, and through that we’re writing another grant
now for more funding — but we’re actually able to connect our projects, instead of just having nine distinct projects that’ll never talk to each other. All of our projects have the potential to talk to each other and communicate and share information. So that’s been really interesting.

The other funding … I’ve gotten some funding from the University for looking at diversity, some looking at educational things. And then the other grant money I’ve been able to get is from my dissertation work, working with nurse researchers in Indianapolis and my advisor, we were able to get an NIH grant. We started writing the NIH grant in 2004. We didn’t get funded until 2006. We just kept resubmitting. So I’m learning about iteration … and I’ve written some NSF grants, but I haven’t had luck with them yet. I am just learning everywhere. But with the 10% accept rate all over the place, it’s a little bit difficult to get grant money. So I’m happy with the grant money that we have been able to get.

V: Interesting. So perseverance pays off.

K: Perseverance pays off.

V: Have professional organizations played a role in your career up to this point?

K: Yeah. You mean, like ACM and …?

V: For example.

K: Right. Yeah. I’ve been involved in ACM since 1998, when I was in undergraduate, when I was an undergrad. […] ACM has played a big role. I … it got me involved in meeting other people in my community. That’s how I got the Lucent internship. We had some … as the president [of the Eckerd College ACM Chapter], I invited some industry people from the ACM — ACM provided me with a list of people willing to speak and I invited them in. And then I got my internship that way when I was an undergrad. And I also participated in the student research competition, one of the first ones that Ann Sobel created at SIGCSE, when I was an undergraduate.

[105:01]

And then in graduate school, I really got … when we created the Women in Computing group, ACM again played a role because Gloria Childress Townsend said, “Hey, you have this group. Why don’t we create a regional ACM-W chapter?” And that kind of morphed into helping Gloria with the regional conferences that she holds and meeting a network of women. And I go to … I went to conferences as an undergraduate and a graduate student. So, without the support of ACM-W and IEEE and CSTA, these just wouldn’t have happened. Yeah. So I’ve been involved locally and regionally.

V: You’ve mentioned a little bit ago that already your first year you had two Ph.D. students, two Master’s students, two undergraduate students that you were supervising.

K: Oh, that was my second year.

V: That was your second year.
V: So it went fairly quickly to acquire students.

K: Mmm hmm.

V: Do you want to talk about the role that these supervisory responsibilities have been taking so far in your career?

K: Sure. Yeah. So, at Colorado, the way it works is … at some schools I know there is a pool of students. But at Colorado you have to fund a student for … you offer a student funding for them to get accepted into the program. So my first year, since I had missed the enrollment period, I didn’t have any students. So, for my second year, I had funding for one student, from the Robert Wood Johnson Foundation grant. And then I also had a TA position that I could give, so I gave it to another Ph.D. student. So those were my two Ph.D. students.

And I met with … I have a group meeting for my lab … I have a group meeting where we meet once a week so everybody knows what everybody is doing and that keeps everybody working. And they also have individual meetings. Sometimes I have more than one individual meeting. My door is always … I have an open door policy. If my door is open, come on in, let’s talk. And because I’m on Facebook, they chat with me and they have my chat — it’s just like all the time. They have my cell phone number; they text me. So I have these formal times and then there’s all this informal work going on. So I meet … I probably meet with my students individually for about forty minutes to an hour each week, just to discuss what they’ve done, where they’re going, what’s the big picture, how’s their work going to continue. And so for my … for Ph.D. students, I meet with them, we talk about research a lot.

For my Master’s students I meet … I don’t necessarily meet with them weekly unless they’re doing a project with me. Sometimes I’m just making sure that they’re on track. So for one of the Master’s students, I’m just a general advisor. But the other Master’s student is doing a project with me, so I meet with him weekly. He’s in my medical informatics class, so we talk before and after class about projects.

And then my undergraduates. Since I had undergraduate research opportunities, I really want to provide undergraduates with research opportunities, because that’s what got me into this path. And, especially, I think it’s important, since CU’s so large, to really make an effort to get students involved in research. And so for my undergraduate students, I meet with them — they come to my lab meetings — and then I meet with them for an hour to two hours a week to just discuss. And they’re also in my lab space with my graduate students, so they … I also partner them with graduate students, and they also have … who mentor them. And the graduate students can get used to a mentoring kind of relationship.

V: So are the undergraduate students writing reports, are they co-authoring papers, or what?

K: They’re co-authoring papers with me. They’re doing research. Last year I had two students in the CREU project from CRA-W, their Computing Research Experience for Undergraduates. And
they created … they designed and evaluated an interface for older adults to search the web. And so we wrote a technical report and now we are working on a publication for an upcoming HCI conference.

And then I have two undergraduate students this year and they’re looking … my new thing is how can we get information for personal health records. And you can’t just go to a new portal, they [the general public] won’t be interested in it. So maybe pages we go to all the time. Like Google we go to all the time; we go to Facebook, especially in this younger generation, especially on these social networking sites. So can they … can we put health information there? What information would be there? What privacy issues are there? What security issues are there? How do they … how would they want to share it over the network with their friends, or what not. So, these undergraduates are researching this kind of information about sharing and posting and health information, and what people would be interested in in different age groups. So I think this is going to be a really interesting work. And I hope it’ll be ready for CHI for next year. But, yeah, my goal is to get them either in a student research competition or publishing at a conference.

[110:52]

V: Do you see yourself as a mentor?

K: Yeah, sometimes I do and sometimes I don’t. Some days … sometimes it’s just so difficult. I’m running in — and sometimes I have my daughter with me because child care has fallen though — and I’m meeting with them and I’m juggling with my daughter and I’m just everywhere at once. And I just look in their faces. And one of my undergraduate students said, “I really don’t want your life. I don’t. I don’t want that.” So am I a mentor in that respect? No, that totally failed [laughter]. And I asked her, I said, “Well, what is it about my life that you don’t like?” And she said, “Well, you’re working all the time.” I said, “That’s my … not everybody works all the time. I chose some life … I made some life decisions that require me to work odd hours. I have a child, so I get to be her mom from … from some days and the next I work. [I stay home with her one day a week and then make up that day on the weekend. It limits our family together time, but at least it breaks up and decreases the amount of time my child is in childcare.] And so those are the decisions I’ve decided to make.” She said, “Yeah, but I want that. I want to be a mom and I want to work. But I don’t want to work like you. So I don’t know if I want to do that.” So [exasperated sigh]. But she still loves doing research with me. So she’s still doing research with me. I don’t know, I’m helping her through that process. But … so I don’t know, sometimes I’m just not a very good mentor. I could be much better. If everybody kept up [my schedule, it would not be a good stereotype for computing.]

But then other times I have relationships with students from different universities that I talk to. And I meet them here at Grace Hopper each year. They come to Grace Hopper and I come to Grace Hopper, just so we can have a meal together and talk about things, like where to go to grad school or what’s next in their career and such. So I guess I’m a better remote mentor than I am a physical mentor.

V: Interesting, interesting. And it’s an evolving relationship, I suspect, as well.

K: Mmm hmm. Yeah.
V: We’ve talked about a lot of challenges that you’ve had in your life along the way. Are there any that you can think of that have been — perhaps, in more recent years — have been particularly telling in how you’ve gotten to where you are and the way you’re choosing to do your career?

K: I’ve been talking to one of my friends about this a lot lately. So, I guess the main challenge in recent years is getting over my mom’s death and getting back on the research path. And one thing it taught me — my mom was 50 when she died, so life is short. I’m 30, so I may have only 20 years left. And 30 went really fast, so 20 are going to speed by. And I can’t die when I’m 50.

So I’m going to take care of myself, so … and yet … and yet I’m not. I’m not. One of my friends said, “You work so much. What are you doing? Are you enjoying your daughter?” And I say, “Yeah, I love her, but …” I said, “I love her, but …” And I shouldn’t say “but.” But I do! It’s intense and it’s hard. And I’m just living for the next deadline, living for the next paper to get in, living for the next grant to get in. When I’m with my daughter, I’m with her, but I’m also thinking, “OK, I have to get her to sleep by 10, so I can be working by 10:15, so I can do this.” And so … I should have learned more from my mom’s death than I’m doing.

V: It’s a hard lesson.

K: Yeah. Yeah.

V: Do you have any strong outside interests that we haven’t talked about that would help us understand you? Any passions that sort of carry you along?

K: Some of my [college] teammates, come from low income, under-served populations. And I created this group with my teammates. We’d go into their neighborhoods and run basketball camps, because we figured the only way they’re going to get attention and go to college is if they are on the [basketball] court somewhere, getting attention. So we created this program to them … and in these neighborhoods, there were lots of health problems. Because one thing that drives me in some … is how can I help people that are less fortunate than me and … with my current knowledge base. Because I have this very bleak view of the future that … that technology is so cheap and there’s going to be so many people who are going to be in need and need monitoring in the future, that we’re just going to thrust technology at them. Just going to sensor them up … let them stay in their … let they stay wherever they are, and have some health professional, trained person, to look at it and see what’s wrong with them. And I think that’ll fail people. It’s not humane and it’s not good. But it’s definitely the way we’re going with making stuff cheaper. So my goal is … right now, is I work with a lot of under-served populations. And what we’re looking at now is how can we design technology now and interventions to help them so that … that future isn’t there. There’s actually tools that can help them make better, proactive decisions on their health and help them live healthier lives than just having some off-the-shelf thing that doesn’t work. So that kind of drives me.

V: That leads into a question that I had wanted to ask next, which is your future vision. Where do you see yourself, say 10 years or 25 years from now? Where is this all taking you?
So in ten years, where do I want to be? Well, I want to be happier. Whatever else, I want to have a more well-rounded life in ten years. But from a research perspective — to do that though, I have to make a decision — but from a research perspective, I want to have this suite of tools that are going to help... a suite of tools that are affordable and usable by anybody, especially in low-income populations, to help them care for their families and care for their children and...

Ideally I just want to help this mom that was one of our interviewees. She made some bad decisions. She’s 28 years old. She has seven children. She’s the only caregiver. And she’s living in this lower-income housing community in Denver. It has two bedrooms. She says, “Yeah, I have no idea what my kids eat. I go to work. I come home. I throw some stuff in the fridge. I buy McDonald’s on the way home. I put them in... I turn on the TV. I put the McDonald’s in front of them. And then I get a half-hour of quiet for myself.” Because she’s been working all day and helping out the kids and she has no time for herself.

So... I guess what I see is some kind of tool — I’m kind of designing this now — but some kind of system that can help her communicate with her neighbors and friends and — not necessarily friends, just, depending, the people around her — to say, “Yeah. I really need some fruits. I really need some vegetables.” And just communicate and share information and say, “Yeah, I can pick that up and drop it off.” Because they live so close together. And help them make better decisions and share... community sharing of information. And sharing that information with their doctors. So that even if you can’t afford to go to the doctor regularly, there’s somebody on the other side that can say, “This is an issue. Maybe you should come in for this kind of test” or something. I just want something that’s kind of all-embodied, that’s a community-based approach to health instead of just individual monitoring, “I can do it myself” kind of thing. I guess that’s my vision.

And I guess... in twenty years from now? In ten years I’d hope to have this done for this community. And in twenty years I’d love to have it... kind of build on it and have communities interacting with each other, not just low-income communities, to have everybody working together with this type of system and improving health and helping people make decisions. And I know I’m being very vague. I’m so tired of seeing obesity problems and seeing how many kids are obese and have risk for diabetes. And they’re so young.

And the reason why I work with this community is because one of my nurse collaborators found that one in... what did she find? I’m forgetting the percentage right now — I think she found 70% of five-year-olds... that 70% of children under five in this community have three of the ten modifiable risk factors that go into heart disease and that their single parent caregivers have seven of the ten. And these are modifiable risk factors. These are like fat intake, this is exercise, this is smoking and high blood pressure. And these kids have high blood pressure. Four-year-olds having high blood pressure! And so there’s lots of different ideas. It’s so easy to say, “Get Mark’s advice.” And that’s what happens. These people are just getting these pamphlets, pamphlets, pamphlets, instead of something that says, “Here’s how you do it. And I’m going to remind you. And I’m going to help you.” So, something that helps them and then blossoms into helping everybody [laughter].

Katie Siek

Interviewed 3 October 2008

(transcript version: 30 May 2015)
Katie just made her arms go into a large arc, making very clear that this is a broad vision.

If you could give advice to a young person just starting out, getting ready to decide computer science, not computer science, what would your advice be?

K: Oh. Hmmm. Well, I guess I’d want to know more about the young person before I gave them advice. I’m not just going to spew computer science. Because computer sciences isn’t for … computing is for everybody; computer science is not necessarily for everybody. So I’d get … ask them about their interests first, then decide what branch of computing that I’d go to. Just tell them about … But I do think computing is necessary in every facet of life. People don’t understand that they’re computing. They don’t understand that Facebook … I have a physiology student in my medical informatics class, and she says, “I’m not good with computers.” And yet there she is, uploading videos to YouTube, sending her pictures, making new icons for Facebook, and such. And I tell her, “You are good at computers. You just don’t define computers like other people are defining computers. Just because you can’t program doesn’t mean you’re not good at computers.” And so … I would recommend that whatever field they are in, they would take Intro to Computer Science. All of computing, it’s always there, they can always come back and use it. But I would also recommend that they look heavily at informatics or information sciences, even … depending on their interest level, because, again, it shows you how you can apply computing to different fields and collaborate with others. And then, if I thought they were good in computer science, I would definitely recommend computer science. Because the opportunities are endless. For example, just my path — I was simulating how to create weapons at Sandia, to helping people with their health. At any point, as long as you have this base knowledge of computer science, you can change you domain and help others in their domain. It’s just this wonderful opportunity at collaboration and seeing the world from a different perspective.

V: Cool.

OK. Here’s your chance. If you had the chance to change one decision up to this point, what would it be?

K: [Laughter] In my career?

V: Yeah. Yeah. Primarily that.

K: You know, everything has just happened so much. I am at a really great place and loving what I do. I would be afraid that if I changed one thing, this would all fall apart. I think … one decision that probably wouldn’t affect anything was, I probably would … Jeremy asked me if he could go to Rice. He said, “Do you mind if I go to Rice?” And I said, “Oh, no. I don’t mind.” Because I didn’t want to be one of those wives. Those wives who say, “I want you here” or something. So I think I would have asked him to stay instead. Because I got very … I went through this period where I got very depressed. And I had to get help to get out of my depression. And then I worked it out. But, not having that depressed period, that would have been nice [laughter].

[124:07]
V: Is there any story that you can think of that you'd like to tell so it'll be remembered?
Something that you’d like to add that we haven’t talked about?

K: Yeah … I think … Yeah. I don’t know how to put that.
I think interactivity in the classroom and giving students opportunities to interact is incredibly important. As a woman in computer science, I feel like when I was a student, I’d walk into a classroom and immediately … [I felt people thought], “Oh, she’s a woman. She probably can’t program as well as us. She probably can’t do … she’s not like us.” And when I was an undergrad, my teacher had two strings on either side. And he said, “I want you to connect the two strings. You have to be able to hold both strings at the same time.” But the strings were in such a position that you couldn’t quite grab the other … the other one. And all the guys were there talking and talking and trying to figure it out. And then I went over and I tied an eraser to one end and I swung it. And then I ran over to the other end and I grabbed it [the other end of the string] and I grabbed the eraser. And my instructor said, “Yeah! That’s what I wanted you to do.” And he tied it in somehow to the computing lesson, but I don’t quite remember how today. But from that moment, it’s like … that changed the dynamic of the class. All of a sudden I wasn’t just a girl. In that very first moment — it was the first day of class — in that very first moment of class, the guys were [thinking], “Whoa, she just problem-solved something we didn’t.” And so I got a chance to prove myself immediately. And that made all the difference in my class. So I think giving opportunities to women to let them shine works well.

V: Excellent. Anything else you would like to add, Katie?

K: Yeah, I … another thing too, is just support. So I’m really big on being here at Grace Hopper and you’re here at Grace Hopper. And I’m working on creating my second Women in Computing group. And once in a while people ask me, “Oh — is it just for women?” And no, it is not just for women. It is for anybody who is interested in helping underrepresented groups in computing. And I talked to some of my education — and this kind of goes back to the other story, too — my friends in education, who are instructional information technology Ph.D. students, and I said, “Do you have a MiE, a Men in Education group?” And they said, “No!” And I said, “Why?” And they said, “Because when we have a man in our classroom, we [tell them], ‘Wow! That’s great! We’re so glad you’re here! You’re going to be such a great role model for our students!’ And they’re really going to appreciate having a man in the classroom.”’ And I said, “Wow!” It’s such a change from my experience as a woman in computing. I would love — in twenty years — I would love for it to be kind of like that, like no big deal. Women in computing! Thank God for Grace Hopper! But no big deal to have a woman in the classroom, in front of me lecturing, at the computer coding. jNo big deal. And no idea that, “Oh, that’s soft and that’s hard.” It’s all difficult. People change … people are fickle. So working with people to create interfaces is pretty difficult. Just like coding. It’s just different types of difficulty.

V: Wonderful. Thank you so much for this time, Katie. I’ve really enjoyed talking to you.

K: Yeah, I enjoyed talking to you, too. Thank you, Vicki.