

Interviews of the Margaret MacVicar Memorial AMITA Oral History Project, MC 356

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Ann Katan – class of 1964

Interviewed by Eden Solomon, Class of 2020

September 10, 2017

Margaret MacVicar Memorial AMITA Oral History Project

Ann Katan [SB Mathematics, class of 1964] was interviewed by Eden Solomon [Computer Science, class of 2020] at MIT on September 10, 2017.

Katan, who lives in Natick, Massachusetts, worked as a computer programmer at the Institute's Experimental Astronomy Lab after graduating, having taken one of MIT's first programming classes. She later worked at a NASA research center in Cambridge, followed by Honeywell and Digital Equipment Corporation. In addition to her family life, she also worked for an insurance company, a computing startup and a major consulting firm. At the time of this interview, Katan, an avid gardener, was doing tax prep work several months of the year – and taking ballet classes.

SOLOMON: Let's start by talking about your childhood. Where did you grow up?

KATAN: I grew up in New York City. My family lived in Manhattan, on not quite the Lower East Side, and I went to a public school there. It was after the war (World War II) and there were four of us living in a one-bedroom apartment, with me sleeping in my parent's bedroom and my grandmother sleeping in the living room. (During the war new housing construction stopped and those resources were used to fight the war.)

In 1951, my parents decided it would be good to get a bigger apartment. We moved to Queens, where I completed elementary school and junior high school. The local high school for our neighborhood had a bad reputation, but New York City had several exam schools which offered excellent educational opportunities. I took the tests for two exam schools, both of which I got into. The one that I went to, Hunter College High School, I went to primarily because it was going to be a much shorter commute for me than going to the Bronx High School of Science.

Unlike Bronx Science, Hunter was well known for its emphasis on the humanities, rather than science and math. I got an OK science education, and I probably got somewhat more than an OK math education. But I certainly got an excellent liberal arts education. At Hunter, I learned how to write, which came in very handy when I got to college.

SOLOMON: A valuable skill.

KATAN: It was a valuable skill that a lot of people never acquired, so that was one of the good things. I also really liked history. At that time, the socially acceptable professional choices for college educated women were to become either a teacher or a nurse. I had no interest in doing either one.

During my junior year in high school, the Soviet Union launched Sputnik. Suddenly, everybody was interested in science and math. The summer between my junior and senior year in high school I went to an NSF summer program at Manhattan College

SOLOMON: NSF being the National Science Foundation?

KATAN: Yes.

In my senior year, I was pretty sure that I was going to go the City College of New York. They had an honors program which I was pretty sure I would get into. I did very well at Hunter and graduated ninth in my class.

SOLOMON: Ooh!

KATAN: Yeah, And I didn't work very hard, that was the real—

SOLOMON: Shocker?

KATAN: Well, it spoiled me, because when I came to MIT, I did not know how to work hard.

In any case, I was all prepared to go to City College. My parents allowed me to apply to one out-of-town school, which was MIT. I did not expect to get in. In fact, I was probably the last person in my high school class to know that I had gotten in, simply because I had cut school that day. The school had been notified. I didn't know till I got home.

My parents were kind of reluctant to send me, or at least my father, because CCNY, the City College of New York, was a good school, and it was free. And MIT, clearly, was not free.

SOLOMON: Right.

KATAN: But my parents decided, or my mother talked my father into letting me go. And I was delighted, because to be honest with you, I was very anxious to get out of the house. It was time. So that is how I got here.

SOLOMON: I see. Was there anyone in your high school, in your life, who helped shape your education?

KATAN: Not really. I had one excellent math teacher at Hunter. I had one excellent science teacher when I was in junior high school. But I would say, for the most part, I sort of did my own thing. I did well, and what I discovered is, if you do well, no one bothers you.

SOLOMON: How did you find out about MIT? Or had it always been something you had thought about?

KATAN: Hunter, at that time, was an all-girls school. One of the places that one of my friends had discovered was the Ethical Culture Society of New York. They had a Friday evening program that was coed where there were discussions on a variety of intellectual topics. (I read Freud there.) It was very educational, and there were guys there, and some of them were older. There were guys that I met, or my friends dated, who went to MIT.

SOLOMON: Oh, I see, OK.

KATAN: I think that was probably it, and I realized that getting a degree in science or math would allow me to be something other than a teacher or a nurse.

SOLOMON: OK. So you went to Hunter--

KATAN: It was an academic high school. It was for "intellectually gifted girls." For the most part, I had extremely good teachers. I mean, they were really dedicated.

In my junior year, my English teacher literally had us writing a 500-word paper every week. (No more than two typed pages.) If you wrote more than that, you got an F automatically.

SOLOMON: Cap it off somewhere.

KATAN: Right. And generally, what happened was that when you got the graded paper back, the teacher had written more than you had, telling you things that you could have done better. It was also a school where you took exams, English

exams and History exams, and in 40 minutes, you were expected to write two or three essays. It was extremely good training.

SOLOMON: Crazy!

KATAN: Yes.

SOLOMON: Did you know all what you wanted to study at MIT?

KATAN: No. As a matter of fact, I graduated from the Institute and I still didn't know what I wanted to do. And that was very hard, because I was surrounded by people who wanted to be physicists, wanted to be chemists. They were very, very focused, and I wasn't.

SOLOMON: I see.

KATAN: I just didn't know what I wanted to do. And in fact, it was so bad that-- What I did was, I dropped out of school second semester of my senior year.

SOLOMON: From MIT?

KATAN: Yes, because I was panic stricken. I knew I didn't want to go to graduate school, because nothing I was studying really lit a fire under me, so to speak. I took the courses that I had to take. I took electives that I thought might be interesting. But nothing really turned me on.

And I suddenly, here I was. I didn't want to go to graduate school. What was I going to do? I basically took the second semester of my senior year off and realized a couple of things. Number one, I wasn't going to get a decent job without a degree. I was going to be an administrator in an office, which is the last thing I wanted to do. And I went back and said to myself, "All right, I'm just going to finish up. I'm going to get my degree. Somebody is going to hire me. I'll get a job. And if I like it, that's fine. If not, I'll stay at that job for a year." (That was sort of the norm in those days if you didn't want to be considered too flighty.) "And then I'll find another job, and eventually, I'll find something I like."

I went back after that semester off, finished up, and got a job at MIT, actually, at a place called the Experimental Astronomy Lab, as a computer programmer, because that last semester I decided I might as well acquire the beginnings of a skill. There was a very basic introductory computer course that I took and I kind of liked. And that ended up sort of being where my career started.

SOLOMON: Awesome.

Backtracking a little bit to the beginning of your time at MIT: What was your freshman year like?

KATAN: At that time, there were four required courses that everyone had to take. We all had to take calculus (four semesters in total). I had advanced placed the first semester so I started with second-semester calculus. Everyone also had to take four semesters of physics, two semesters of chemistry, and four semesters of humanities. At that time there was a Humanities in French class, which, like an idiot, I took. I mean, I'm not good in foreign languages. I did go to a high school where – it was unusual at the time – the teacher spoke only French in class and insisted that we only speak French. In most high school foreign language classes, your teacher spoke in English, and you did your work in the foreign language you were taking.

So basically, my freshman year there were four required courses I had to take each semester. The first term, I took an Introduction to Astronomy class. God, I remember all this. This is incredible! And the second semester, I took Russian, and decided foreign languages and me were never going to meet again.

SOLOMON: What about where you lived?

KATAN: We lived at a place called 120 Bay State Road [in Boston]. It was the "freshman women's dorm." It was basically a brownstone. There were three floors and an attic. Freshmen year, first semester, we were assigned a roommate. After the first semester, friendships formed. We moved around; we changed the rooms where we lived, who we lived with.

SOLOMON: All right. How many women were in your class?

KATAN: There were 17 of us who lived at 120 Bay State Road. There were three of my classmates who had the great misfortune of being housed in a dorm that was associated with Katie Gibbs Secretarial School. It was very difficult for them. And four girls lived in the Boston area and commuted.

SOLOMON: OK, so that makes about--

KATAN: Twenty-four.

SOLOMON: Twenty-four women.

KATAN: There may have been more, but I think 24 was it.

SOLOMON: Twenty-four women out of a class of--

KATAN: Six hundred, I believe.

SOLOMON: Six hundred!

KATAN: Yes. What they tried to do was put two girls in the small classes like the recitation section for physics, chemistry, so you weren't the only girl in the class.

SOLOMON: Tried to balance it a little bit.

KATAN: Not much.

SOLOMON: Did you notice that you were a very small minority in terms of gender?

KATAN: Oh, of course, of course. Not only did you notice it, but you frequently had professors who were very unhappy that you were there, because you were taking the place of a man.

SOLOMON: Oh dear.

KATAN: Yes. And some of it resulted in, if you were marginal, say, between a B and C, you'd get a C.

SOLOMON: Hmm. I see.

KATAN: Yes, there was a lot of prejudice. There were a lot of people who didn't think women belonged here, although they'd been here for a very long time.

SOLOMON: Hmm. So you very much noticed your own gender, and you very much noticed how people were reacting to it, in terms of professors--

KATAN: I certainly dated people from MIT. I also dated people not from MIT. But a lot of the guys just assumed, you know, that there were so few of us, it was ridiculous to even think about it – which is OK, because most of them were colleagues. It ended up being that way. It was fine.

SOLOMON: So you don't feel it so much from your classmates?

KATAN: I felt it less from my classmates and much more from the professors.

SOLOMON: I see. Was there any particular class throughout your four years that is memorable for one reason or another?

KATAN: Not in the sense that you would think of memorable. There are two things that I remember very well. One was – again, times were different – I used to smoke, and I smoked a lot. One day – I believe it was a physics class, but I won't swear to it – the professor is calling the roll, and in those days, you could smoke anywhere, including in class. He's calling the roll, and people invariably mispronounced my last name. They liked (and still do) to rhyme it with my first name. So it's normally "Ann Kat-ann." And I was lighting a cigarette, and he called my name, and I said, "No, it's Katan – rhymes with Satan." And the only time in my life, the book of matches went up in my hand when I lit the cigarette. [LAUGHS]

SOLOMON: So it looked like you were--

KATAN: Right, right. I mean, there was this stunned silence for half a second, and then everyone was laughing hysterically.

SOLOMON: That's an amazing memory.

KATAN: Well, that's not something you're likely to forget.

SOLOMON: Very true.

KATAN: The other thing that I distinctly remember was that it turned out I was interested in economics. I took a lot of economics courses. In one class, we had an exam, and the instructor-- We're talking about MIT. He gave an essay exam where you had to write four essays in 50 minutes. I got my paper back, and the class average was somewhere around 50. I looked at my paper, and I have a 97. Looking at my paper it was clear that what the professor had done was essentially take each question and grade the entire class on that question, then go to the next question, because all of them were marked -0 and 3 of those were erased and changed to -1.

So I was not a great student at MIT. Part of it, as I said, was simply that I had acquired bad habits in high school. I had been told how hard I was going to have to work, and I didn't have to work hard. I had done very well without having to work hard.

SOLOMON: At Hunter.

KATAN: Yes. So I came here, and first of all, I was overjoyed. I wasn't at home. I was free. I didn't have people telling me when to go to bed, when to eat, when to do all that stuff. I loved it! And I was, shall we say, not very disciplined. But I got a wonderful education here, despite my best efforts not to get one. Basically, I learned how to think – and I learned how to do research by myself. If I had a problem, if I needed information, I learned how to go about finding it by myself.

SOLOMON: How to learn.

KATAN: Yes, how to learn, how to teach yourself, which came in handy because, at least for me, I ended up, as I said previously, having a career in the computer industry. I started off as a programmer and ended up managing a lot of people and a lot of money. Mostly, I was self-taught, because in those days, there wasn't a computer science major here and very few places had computer science or computer engineering majors.

I took my introductory programming course as a senior, and I ended up, after working for MIT for a year, working for NASA, which had a research center in Cambridge. At NASA, I worked helping the scientists and engineers debug their computer programs. I also wrote Fortran programs for the engineers and scientists that didn't want to write their own programs. I also did the technical evaluation of the possible computer systems that the organization was planning to purchase. Once we had our own computer system (an IBM 360) I wrote the software to interface a non-vendor supplied piece of hardware (a plotter) to our existing computer system.

One of the advantages of working for the government is that if you took a course, they would pay for it – but you had to work a certain amount of time to end up not owing them money. And I took what was, I think, at the time the first real computer course in what would become the computer science part of the electrical engineering department. And I really liked it. That's all the education I had in computers.

SOLOMON: So you took the class at MIT?

KATAN: Yes.

SOLOMON: And you graduated when?

KATAN: I dropped out in second semester, of my senior year, January through June of '64, so I actually graduated with the class of '65. I consider myself class of '64

because that's the class I entered with. Those are the people who I spent the most time with. But everything else I learned – and I learned a lot – I ended up having to teach myself.

SOLOMON: So you never went back officially for any kind of grad school?

KATAN: Nope.

SOLOMON: Just that one course?

KATAN: That one course, that was it. I don't know why. I really didn't like school. I'd just had enough: "No more."

SOLOMON: Fair enough.

KATAN: Yes. I mean, it's sort of like I live in this family-- My current husband (my second) has a Ph.D. I have two daughters; they both have Ph.Ds. I have two sons-in-law; they both have Ph.Ds. And I sit at the table and say, "I'm the only who only has a bachelor's degree."

SOLOMON: What did you end up doing after that, after taking the class and working with NASA? How long did you work with them?

KATAN: MIT?

SOLOMON: For MIT [as a programmer at the Experimental Astronomy Lab], you said you worked one year.

KATAN: That's right. At NASA, three and a half years. I left because they announced that were going to close the research facility and for quite a while it was unclear if the government was going to replace it with something else. (It eventually became the Volpe Transportation Center, but it took a while for that to happen.)

I was going to be without a job, and we needed the money. At this time, I had two young children. Being a full-time mom and spending my days with two young children was not really what I wanted to do. I loved my children dearly, but I figured that if I spent all day with the two children, all I was going to want to do at night was go out and do something else. Babysitters were expensive, and with one salary, we weren't going to be able to afford the babysitters.

I ended up working for Honeywell. In those days, they were one of the big computer manufacturers.

SOLOMON: When did you meet your husband?

KATAN: He was a student here at MIT. And, oh yes, I forgot to mention: a lot of my time as an undergraduate, I spent playing bridge. I spent a lot of time in high school playing bridge. I used to play a lot of tournament bridge. That's how I met my husband.

SOLOMON: Was he also class of '64?

KATAN: Well, no. He was class of '63 and managed to graduate in '64. I was class of '64 and graduated in '65. I was quite young (by today's standards) when I got married and I had two children soon thereafter. The first one was born when I was 23, the second one at 25, so my life was pretty full. There wasn't any room for school. And I had no interest. Mostly, my jobs were interesting enough, and there was always stuff I had to learn.

SOLOMON: There was learning you were doing outside of necessarily being in grad school.

KATAN: Right. When I started working for MIT, the programming language that I had learned in the course I had taken was MAD (Michigan Algorithmic Decoder). This was not the programming language that was used for the work that I was doing so I had to learn a different programming language (Fortran). In the computer course that I had taken, the instructors set up the instructions needed to submit the job to the computer. Now I had to learn that for myself. The computer that we used when I started the job was an IBM 7094. However, about halfway through the year I was there, the Experimental Astronomy Lab purchased one shift a day on a new IBM System 360/40 that had been acquired by the Civil Engineering Department. I had to learn about the process of submitting control information that told the computer exactly what to do.

One of the main differences between the IBM 7094 and the IBM 360 was a difference in the in how memory was addressed. The IBM 7094 had 36-bit words. In the IBM 360, memory was addressed in bytes (4 bits). The normal Fortran translation from the 7094 to the 360 assigned 4 bytes to what had been a word on the 7094. Many of the existing programs that had run on the 7094 now produced dramatically different results on the 360 because of a loss of precision (the difference between 32 bits and 36 bits).

When I was a programmer, which I was for many years, I'm a 90% person. I like to get to know something and learn it to about the 90% level. The final 10% takes years and years and years. You can probably get to 90% in two or three years. I have no interest in being an expert in anything, but I do like to be competent in what I'm doing.

Over the years, I did many different types of programming. I wrote device drivers (which allowed new devices to communicate with the processor such as disk drives and magnetic tapes drives), and I wrote networking software that allowed different computer systems to communicate with each other. In all these cases there were a lot of things to learn and that's what I liked. Then I would go and do something else, and generally, some of the skills that I acquired in a previous job came in handy in the current job. It was fun.

SOLOMON: Nice.

KATAN: I had a good time.

SOLOMON: So the best way that MIT prepared you for your career was teaching you how to learn and how to learn on your own?

KATAN: Yes, I would say so. I would say for many people, that's really what the takeaway is from going to college is: learning how to find out things for yourself, learning how to learn by yourself.

SOLOMON: That's awesome. So you finished working with NASA three and a half years after--

KATAN: Right, because they just closed the place up, and I went and worked for Honeywell for a year. I worked on the largest of their mainframe computers. Then my husband got a job in Hartford, Connecticut. I worked for an insurance company in Hartford.

Basically, I was one of the people who was in the computer center to help the other programmers who had problems. I had one interesting assignment and that was to rewrite the file system for a Univac 1108 so that a single copy of the file system could be used simultaneously by multiple programs. I hated the job because it seemed that the sole performance criteria was how many Fridays and Mondays you took off, not what you did.

SOLOMON: OK.

KATAN: When we left Hartford, we came back to Boston. I worked for a small startup that was developing the first point-of-sale systems on mini-computers. The work was fun, but the company made some poor decisions. Basically, they'd get a contract, and they would program for exactly what that particular company wanted. Then they would get another contract and the people working on that contract would start all over from scratch which is not an efficient way to work. Anyhow, I was laid off, and about the same time my husband and I decided to split up.

The great thing that happened to me was that I ended up having wonderful choices as to my next job, and I went for Digital Equipment Corporation in 1974. You should look them up, because from the 80s through, I'd say, the '90s, they were the second-largest computer company in the world (after IBM). The place really was a meritocracy, which was wonderful. It didn't matter if you were a man or woman. If you did your work and did it well, you got ahead. Didn't matter if you had a college education or not.

SOLOMON: If you did the work--

KATAN: When I started working for Digital, I started off as a senior software engineer, and ended up, several promotions later, as a group engineer with over 100 people, mostly engineers, working for me.

SOLOMON: Wow!

KATAN: Yeah. I had a good career.

SOLOMON: Nice. Did you feel, once again, the way your gender impacted your career? Did you feel it everywhere else, except, I mean, Digital?

KATAN: I didn't, not that much. Because for one thing, when I started as a programmer, there were virtually no programmers. There were no computer science majors. A goodly number of the people that I worked with at Honeywell, for example, were music majors. A lot of music majors ended up as computer programmers, in those days. (I think there are certain correlations between music and mathematics.) It wasn't an issue, because the field was so new. They were so desperate for people.

SOLOMON: If you could do well--

KATAN: It didn't matter. It didn't matter. At least in the beginning, it just didn't matter. The other thing that was wonderful was that I had an MIT degree, and that gave

me instant credibility. Where other women would have to struggle, I would go in, and I had an MIT degree, and people took me seriously. For my early years, I always wore my rat ring.

SOLOMON: The MIT brass rat?

KATAN: Yes.

SOLOMON: I get mine next semester. I'm looking forward to that!

KATAN: Early! We didn't get our until we were in our junior year.

SOLOMON: Yes. I think they give it to us earlier now to help us with networking.

KATAN: Well, as I said, people took me seriously. It was wonderful, because I've met many women my own age who didn't have that--

Basically, at this point in my life, I spend my winters, when I have nothing better to do (like gardening), doing taxes for H&R Block, which I've done for several years now. Three and a half months of the year, I work. A lot of it is not intellectually challenging, but I always have a couple of returns where I have to do research, and really think about.

SOLOMON: Think about it a bit.

KATAN: Yes, a lot. A lot, in some cases. But as I said, for so many years, that MIT degree just gave me-- People took me seriously.

SOLOMON: It opened doors.

KATAN: Yes, a lot, so I'm very grateful.

SOLOMON: Did you end up staying at Digital until you retired?

KATAN: I left Digital in '94, and I was really burned out. The program where I had over 100 engineers working for me (developing a fault-tolerant VAX) and another 500 people all over the world in manufacturing and field service associated with the product. It was cancelled after the product shipped. There was a lot of politics going on and the company had changed.

I had gotten another job at Digital as a manager. It was a much smaller group. I said to myself: "This job will be interesting for no more than six months."

I had just laid off, I would say, 80 or 90 people when the fault-tolerant VAX project was cancelled which is really hard. It's especially hard when you're in the middle of a recession. You know that some of these guys are the sole support of their family, and you don't know where they're going to find a job. Plus, shutting a project down is not fun.

I had started this new job, and as I said, I was not enthused, but it was a job, and it was OK. And then they had another layoff, and I just could not bring myself to do any more layoffs: I had done my layoffs. I did not want to fire another three or four people. I said, "Why don't you just let me go?"

I took a year off, and then ended up spending probably about 11 or 12 years doing freelance work. I was a freelance IT analyst, and I got assignments from two or three large, and one very large (Gartner Consulting), companies.

I generally had a reasonable amount of work to do; I just worked at home. I generally worked on things related to computers – comparison of four different products that virtually did pretty much the same thing. And at some point, the only way you could choose one from another is know what the application was, because one of them might have a little feature that would make doing that application easier.

But as I said, it became much more uniform, from a hardware, operating system, IT management perspective. There was less and less work to do at which point I started doing taxes.

SOLOMON: So you've never officially retired?

KATAN: Well, I would say I'm retired. I mean, if I only work three months a year--

SOLOMON: You're retired.

KATAN: I'm retired. I do what I want.

SOLOMON: At this point, like you said, you spend three months out of the year doing taxes with H&R Block. What else do you do?

KATAN: I dance, which is where I was this morning. And I take ballet, still, at my advanced age.

SOLOMON: When did you start?

KATAN: Interestingly, I did it as a child. I was very clumsy, and my grandmother decided when I was three that we ought to do something about it. They sent me off to ballet school. I ended up dancing till I was about 13, when I became much more interested in boys than going to dance class on Saturday.

Basically, the other hobby I have, which I'm still pretty obsessive about, is gardening. When I was working at Digital, we'd get Patriot's Day off. I'd have three days off, and now it would be spring. I would go out in the yard, and for three days, I would basically spend 8 to 10 hours outside, gardening.

When I was in my early 40s, I think I said to myself, "You can't do that. You can't sit on your butt for six months of the year and then expect to go out and spend 10 hours a day, for three days. You just can't do this to yourself anymore." I decided I needed to find some kind of exercise to do when I wasn't outside gardening, something that would keep me in reasonable shape.

The other thing I had done as a child was swim, but I found—going to a swimming pool in December, I had long hair, very thick, coarse hair. First of all, I'd come in, and it was cold outside, and it was kind of clammy in the dressing room, but basically cold. Getting into a cold pool, I'd swim, I'd come out, and my hair was wet. I would take a hot shower. By this point, the dressing room felt unbelievably hot and humid. I did not have the patience to really get my hair dry. Then I'd go out and in the frigid cold. You know what Boston's like in January and February! You've lived here and Albany, New York. And I wouldn't go some Monday night and then I wouldn't go for the rest of the year!

I was living in Brookline at the time, and the adult education program had a class for people who liked ballet. I said, "Oh, why don't I take it? This costs next to nothing." And I discovered I really did like it. And then, amazingly enough, there was something called muscle memory. My body did remember what it was supposed to do.

SOLOMON: That's amazing.

KATAN: Yes, but I came home, and I cannot tell you how sore I was! But I've been doing it ever since.

SOLOMON: Nice.

KATAN: Let's put it this way: it's good for me. It's good for my posture. It's good for my balance. It's good to move. I feel better, not only physically, but emotionally. If I get exercise, I feel better.

SOLOMON: That's awesome. Anything else you would like to mention?

KATAN: Is there anything you'd like to ask me about?

SOLOMON: One last thing.

KATAN: Oh, by the way, I will tell you, I got divorced. I did remarry, eventually. It didn't take very long to find another mate. We lived together for 30 years before we got married. I had had a bad experience. Marriage didn't work the first time. Why do it again?

SOLOMON: Fair enough. My last question, I guess, is, what advice would you give to any young women going into MIT, or thinking about going to MIT?

KATAN: I think you have more options today than you did when I went to school. I don't think women are restricted in the sense that, you know, if you're college educated, you have two careers open to you: being a nurse or being a schoolteacher.

So I would say, I don't know how different it is, but I think you need to be passionate about something. I think you get much more out of your education if you really have some idea of what you want to do.

If you don't know what you want to do, you are probably better off someplace else. And I'll tell you something else. So many people, including myself, that I went to school with got degrees in something and ended up doing something entirely different for their career. So--

SOLOMON: Go figure.

KATAN: Exactly. Well, for example, my husband has a Ph.D. in chemistry. When he got his Ph.D. and got out of the army, no one was hiring chemists. He had done some work acquiring a computer (from Digital Equipment) for the lab where he worked while in the army (Natick Labs) and when he left he got a job doing computer support at Digital Equipment.

A friend of mine with a degree in metallurgy ended up in the computer business. I mean, you get to a point that you really love something and you may

get a degree in it. You may get an advanced degree and discover there are no jobs available in your field, and you need to work. So, you get a job doing something. As my husband said, he got a job in the computer business. He thought he'd look for a teaching job a year later. He said, the best thing that ever happened to him was that he did not get an academic appointment.

So what I would say to people is certainly, I think it's better to come to MIT being passionate about something. That may not be what you end up doing, but I think it's important to be passionate. I think it was a terrible place to be a dilettante, which is what I was when I came to college. I mean, it turned out fine. You know, I had what I consider a very successful career. I enjoyed myself. I'm financially comfortable. I work not because I have to, but because I want to, at this point in my life.

It may have changed. I don't know how different this place is now. I mean, I don't know how easy it is to be a dilettante here, if it's easier to be a dilettante here than it was when I was here.

SOLOMON: Probably still just as hard. There are a lot of people who are really passionate, and they're the ones who do the best, who get the most out of it. That's still the same now.

KATAN: Yes, but let me put it this way. Don't say, "get the most out of it." That's not what it's about. I mean, basically, what you get out of it, to a large extent, is first, a credential, which is really valuable, and secondly, the ability to learn by yourself, and how to attack problems. That's the most important thing. I really mean it. If you have a problem, how do you attack it? Learning how to do research, having the confidence that you've done this before, that you'll find an answer to this one problem.

SOLOMON: Thank you so much, Ann.

KATAN: You're welcome.

SOLOMON: I'm so glad you could come, and that you could do this with me.