

# NCWIT Interview with Lucy Sanders

**BIO:** *Lucy Sanders is CEO and Co-founder of the National Center for Women & Information Technology and also serves as Executive-in-Residence for the [ATLAS Institute](#) at the University of Colorado at Boulder. She has an extensive industry background, having worked in R&D and executive positions at AT&T Bell Labs, Lucent Bell Labs, and Avaya Labs for over 20 years, where she specialized in systems-level software and solutions (multi-media communication and customer relationship management.) In 1996, Lucy was awarded the Bell Labs Fellow Award, the highest technical accomplishment bestowed at the company, and she has six patents in the communications technology area. Lucy serves on several boards, including the Mathematical Sciences Research Institute (MSRI) Board of Trustees at the University of California at Berkeley; the Engineering Advisory Council at the University of Colorado at Boulder; the Denver Public Schools Computer Magnet Advisory Board; the Advisory Board for the Women's College Applied Computing Program at the University of Denver; and several corporate boards. In 2004 Lucy was awarded the Distinguished Alumni Award from the Department of Engineering at CU. Lucy also is Conference Chair for the 2007 Grace Hopper Conference, having served as Program Chair for the conference in 2006. She is currently serving on the Information Technology Research and Development Ecosystem Commission for the National Academies. Lucy received her B.S. and M.S. in Computer Science from Louisiana State University and the University of Colorado at Boulder, respectively.*

**Larry:** This is Larry Nelson, and I am so pleased that I'm a part of helping get this new campaign kicked off. We have with us today Lucinda Sanders. Lucinda is the CEO and co-founder of NCWIT, here at the University of Colorado. Welcome to the show, Lucinda.

**Lucy:** Thank you Larry. You can just call me Lucy if you'd like.

**Larry:** Oh, I'd love the more comfortable. All right.

**Lucy:** All right.

**Larry:** Now this is the real kick-off for the NCWIT Entrepreneurial Interview series. So we are just getting this kicked off. And Lucinda, you have such an interesting background. We'll get into some of that. We are going to take a closer look at what this series is really all about. I'm very excited.

Let me ask this question. It's a basic, but a very important question. How did you first get involved with technology?

**Lucy:** I first got involved in technology by learning to program computers when I was in college. From there, once you learn how computers worked and I got a computer science degree and out into industry and started to see how you could use technology and computing to solve real world problems for people. And so I would say I really came at it from a very traditional way, through the education path, and on through getting a graduate degree in computer science as well.

**Larry:** Let me take a quick leap here. What technology today do you think is really cool?

**Lucy:** Well, I really like radio tags. You know RFIDs? I think that technology - first of all, it's very difficult, not the radio tag itself, but dealing with all the data that radio tags can potentially send when they pass readers. And so, the use of those and not just basic inventory systems, but for example, you could use such a radio tag on frozen food and then it has a recipe on it that can talk to your microwave oven and then cook the food automatically when you put the food in the microwave oven. Your radio tags can be used for lots and lots of things - and fairly creative things as well.

**Larry:** That really is cool. Now, Lucy, in this series we are going to be interviewing a number of entrepreneurs. But also, we want to take a look at the entrepreneurial aspect, because you are a Bell

Labs Fellow. Let's see if we can take a look at that. How do you operate as an entrepreneur as well as what got you involved with that?

**Lucy:** Well, inside Bell labs, I was always working on the leading edge projects and in fact, inside big companies like Bell labs or AT&T or Lucent, its often the case that small teams form that are a lot like entrepreneurial companies. Now they don't have to go out and raise capital. You don't necessarily have venture capitalists, but they do have to attract budget within the company to move the product ahead. And they frequently have small teams, really too small teams to get the product done. And they really are in many ways, entrepreneurial in nature.

So, I always had those kinds of projects. For example, working on the very first risk-based processing PBX system and operating system; all the way through Internet commerce and working on voice over IP and multimedia collaboration systems. I always gravitated toward those types of projects. I've loved them. I love them still and in fact, NCWIT is almost like that kind of a start up project.

**Larry:** Yes, it is.

**Lucy:** Its entrepreneurial, its socially entrepreneurial, but those kinds of projects where you don't know the answers, where it's not routine operational or maintenance, where you really are creating something from nothing and using the creative talent of people, I think, is what really excites me about that.

**Larry:** That's one of the interesting aspects. Many people who are hearing about NCWIT for the first time, could you give us just a little overview about what it is?

**Lucy:** Sure. NCWIT stands for the National Center for Women and Information Technology. We are really focused on getting more girls and women into information technology in its broadest sense - into use of computing for all types of applications. We really work across the whole pipeline, K-12 through entrepreneurial careers, which is one reason why we're so excited to be sponsoring this interview series with really fabulous women and IT entrepreneurs.

**Larry:** Yes, we are really looking forward to it. I've seen the list and it's fantastic. Let me see if I could just dig a little bit deeper here, Lucy. What is one of the toughest things that you have had to face in your career?

**Lucy:** Well, probably one of the saddest, I would say tough times was downsizing the team or shutting a location. We went through periods of time where we would buy companies and integrate them, integrate the technology, and integrate the teams. Sometimes you had to make the tough choices about which locations needed to be shut down and people had to be laid off or let go. That's always tough. You lose a lot of sleep over that kind of a decision. It's in the best interest for the business and yet from an individual's perspective, it's certainly quite difficult.

Whenever I face that, I really try hard to do the right thing, find people jobs, make sure they could transfer other places or that in the local economy there were places that could take them as well. So, when we did have to face that kind of decision, we did it with as much grace and humanity as we could. But that's easily one of the toughest things that I've ever had to do.

**Larry:** You know, one of the things that if you talk to any really IT pro or an IT one of those people who are really out there, the word mentor or role model comes up all the time. Who are some of the people in your career that influenced you?

**Lucy:** Well, one person who influenced me that I've never met, but I modeled myself after him to some degree because he was the very first chief technology officer I have ever seen, ever heard about using that title and that was Eric Schmidt when he was at Sun. Of course, we all know he has gone on to Google, but I really liked what he did in terms of getting out there and explaining technology and how he was expansive in his thinking about technical solutions and he really was somebody who I looked at and

thought, I'd really like to be a chief technology officer. In fact, I did become one and I love that role. So, in one way, I think he influenced me quite a bit although he wouldn't know me from the man on the moon.

**Larry:** That is interesting, indeed.

**Lucy:** He totally influenced me and I had a number of mentors inside Bell Labs that I thought were just outstanding. I think I've talked to you before how the culture at Bell Labs really supported mentoring and women and I had a number of mentors who really taught me a lot.

**Larry:** It might not be looked at from the outside so much, but your position here with NCWIT is really just like an entrepreneur. So let's imagine you were sitting down right now talking to a young girl, a young woman who is thinking about maybe getting into a field and being an entrepreneur. What kind of advice would you share with them?

**Lucy:** Well, so often when you are just starting something out, it's very ill-formed because in fact it doesn't exist. And so, I guess my advice would be to just live with that. Know what you know and try to test it with everybody. Go test the heck out of it.

So if you have an idea for a company or you have a way to explain what you want your nonprofit to be doing, you do your best story and then go tell it, and tell it over and over and over again, get input. And think expansively about it, because quite likely it'll be very different in a month or two months or six months as you go out and do that, but don't be afraid of not knowing the answer.

I think so many people stop themselves because they can't see clearly between where they are and where they want to go. And in fact, I would maintain that that's exactly the kind of job you want, where you sit with what you have, and you make the best possible case, and you just keep improving it as you go.

I think with NCWIT we have had people, not so much anymore because we are really tight on our story, we know exactly what we're doing and we can explain it in 10 minutes, you know, the famous elevator pitch, but we had a few people when we first got started who just wouldn't come along because they couldn't see clearly what it was going to be or where it was going to go. They couldn't get with the vision. So I think entrepreneurs need to be exceptional at this.

**Larry:** I couldn't agree more. Here you are, I mean, you are busy, you travel around the country, you meet with all kinds of groups and individuals from entrepreneurs to larger organizations. How do you bring balance to your personal and to your professional lives?

**Lucy:** Flexibility, a flexible schedule, being able to schedule things when you pretty much want to do them. So it's not uncommon to see me working until midnight; it's also not uncommon to see me taking off in the middle of the day and going to see my kids play soccer or doing what they're going to do.

Was it Best Buy that had a story on the un-tethered workplace? It's not so important when you do your job and work, or where you do it, but that you do it. Now, obviously that can't get taken to the total extreme. Often you need to have schedules and meet with people and be attentive to that, but I think having that kind of flexibility in my day is what makes it all work out.

**Larry:** Don't you go out there and jog every now and then too?

**Lucy:** I jog all the time. I run every day, although I'm a little slower than I used to be, but I can still get out there and go a good four or five miles.

**Larry:** Excellent.

**Lucy:** And running's great. Gardening's great. My husband and I like to - my husband's a great cook - and so we like to eat. I guess that doesn't bring balance, it might bring a few pounds. Well, you know, hey.

**Larry:** You know, I think it was just a week or so ago, I think Brad Feld said, "I think that Lucy Sanders just passed me."

**Lucy:** He did not.

**Larry:** Oh, didn't he say that? Oh, Okay. I thought he...

**Lucy:** The day I pass Brad Feld is a day to celebrate.

**Larry:** Yeah, you bet.

**Woman 1:** I have a question. You have two boys.

**Lucy:** Yes.

**Woman:** So how do they look at you in the broader scope of women?

**Lucy:** Interestingly enough, I think that kids of their age still aren't at the place where they see that there is any difference in the way people act and they don't want to admit it. The way they look at me is, I think, I'm just Mom. So we don't really talk about any under-representation issues or anything else.

Now, I would say that they are, I think they're proud of me. I think they have seen my career and what I've done, and I think that it motivates them. I could be wrong, you could interview them.

**Larry:** Lucy, let me ask you this question. What do you feel gave you the advantage to get in the position that you're in today as well as all the way through your IT experience?

**Lucy:** Well, I really am very relentless, not relentless in a bad way, but I go at it over and over and over until I find what I want.

So I don't want to say I'm patient, because I'm really very impatient, but I'm very...

**Larry:** Persistent?

**Lucy:** I'm persistent. I'm very, no, my husband says I'm very relentless.

**Larry:** Oh, really? OK.

**Lucy:** And I am relentless in business. So I really do look at every no I get as just the first step to a yes, that they didn't mean it.

**Larry:** Wow. You sound like Thomas Edison.

**Lucy:** I think that that's important, I think, it has been important to me.

The other thing that I think has been important to me is that I work incredibly hard. I put in a lot of hours and I have extremely high standards. And I have high standards for myself first, and I have high standards for others later.

And at the same time, I have incredibly high forgiveness, so if the bar is high, then there should be a safety net and people should not be made to feel bad if they can't quite climb over that high bar. It's just that if you set it really high, then there's always going to be learning.

So I think some of those perspectives have helped me in giving me a bit of an advantage.

**Larry:** Wow. I like that. That is usable, powerful, motivating; that's really good.

You know, by any standards, you have already accomplished a great deal in your life. And I know you've got a lot of things probably down the road that you'd like to do, but give me a little piece of near-term, what do you see for yourself in the near-term, and then maybe longer down the road?

**Lucy:** Well, near-term, I think, speaking about NCWIT, we have spent about two and a half years really building the foundational infrastructure for NCWIT. By that I mean we've got about 100 organizations, corporations, universities, nonprofits that are part of our alliances. We've built a technical infrastructure to support them; we've built a best practices infrastructure to support them; and project management meetings and workshops to support them.

And now it's time to really start to drive the utilization of that infrastructure and to create series like this interview, series to really work on reform within our organizations.

So that's in the short-term for NCWIT. I mean, you can imagine building out a national infrastructure takes a little time. And I do think that people will commit to reform within their organizations once they see the infrastructure's there to support that. So we're at that point right now; it's an exciting time for us.

The longer-term, I don't yet know. I'm still really in the startup of NCWIT, so I'm pretty blind to everything else and I can't see that far out. Although I do know this: I really love technology. I don't think I'm through inventing technology yet, but I don't know what that looks like.

**Larry:** We're going to follow up on that and find out.

**Lucy:** Okay.

**Larry:** Wow, Lucy, this was a fantastic piece of information. We're really looking forward to the series, the entrepreneurs interview series for IT and women. This is going to be just great.

And what's the website that they can go to check out other stories?

**Lucy:** It'll be hosted from the NCWIT website, [www.ncwit.org](http://www.ncwit.org).

**Larry:** Sounds perfect. Lucy, thank you so much.

**Lucy:** Thank you.