

The Excitement of “I CAN”

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ABSTRACT

“I can.” It is a powerful sentence: I can. I didn’t always believe that “I personally could” – do anything I want and be good at it. But I had several people who always encouraged me to believe in myself. One of them is my role model and my former advisor in graduate school. In this paper, I want to share some of the lessons I have learned from her that have proved to be invaluable. Her efforts in making us – her students – better researchers, better educators and just better people will certainly not go unnoticed. She never ceased to manifest the excitement of “I can”.

1. INTRODUCTION

1.1 Background

I never planned to get my PhD in Computer Science. I was working as a software engineer in Boston, and since the work was not very challenging, I decided to take some graduate courses in the university nearby, Worcester Polytechnic Institute (WPI) in Worcester, MA. I took a database course with Professor Elke Rundensteiner. Little did I know, what an impact that course would have on me, my career and my life.

Professor Elke Rundensteiner was probably one of the most exciting teachers I’ve ever had. Always enthusiastic, energetic and smiling, she managed to make even the least exciting material interesting, keeping our attention for hours, and making the class really fun. Even if you wanted to “zone-out” and let your thoughts “wonder-away”, she would find a way to keep you involved. Frequently, she liked to ask you for a personal opinion on the subject at hand. So certainly most of us wanted to say something “intelligent”, should we get picked upon to voice our opinion.

Whenever she talked about research, you couldn’t help but notice a bright spark in her eyes. She was definitely excited about it! Her love of database area and research was contagious. After the semester was over, I was determined to take the Advanced Databases class. Moreover, I switched

to a thesis option, and asked her to become my research advisor.

Working on research was really a stimulating experience. We met every week. Professor Elke Rundensteiner was always accessible. No email would go unanswered, and it was very common to get a reply from her within a few seconds, even if it was really late into the night. I always looked forward to our meetings, because I learned so much from them. The breadth of her experience enabled us to approach a problem from different angles and to give me plenty of food for thought.

In addition to discussing research, “Professor Elke” (so I used to call her) and I have had many fascinating conversations about Computer Science in general, about her experience going to graduate school, being a professor, and life in general. She would always encourage students to “speak-out” and ask questions. Her constructive criticism of design, papers, talks, and presentations have helped me improve my skills. Frequently, I would walk in to her office being frustrated and discouraged, and leave a “new person” – full of optimism, enthusiasm and energy. She had an incredible talent for that!

Without a doubt, my research experience with Professor Elke Rundensteiner has been an important part of my personal development in graduate school. I have been placed in a position with much creative control. I worked on my own time, and it was up to me to get a sufficient amount of work done each week. I’ve found that the freedom of pursuing the subject of interest and coming up with new solutions was absolutely thrilling. I was very much driven by my own interest in the project, and working on it, didn’t really seem to be a “work”.

After completing the thesis for my Master’s degree, I felt a great sense of satisfaction. Working on it confirmed my desire to pursue a PhD degree in Computer Science and to do research in this field. I decided to leave my job and pursue PhD full-time. Partially it is Elke to “blame” for making research so interesting, which eventually lead to changing my career and life.

But not all the experiences have always been “sweet”. Just like any other graduate student, I have been experiencing many “ups-and-downs” in my graduate studies and research. I turned frequently to Professor Elke for an advice, who always reminded me to give things a chance to happen. She would always encourage: “Do it. Try it. Quit worrying about it and just do it. How will you ever know if you can publish at that conference, get all those experiments done, earn that degree, make that great presentation, get excellent

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grades – unless you try it!”

At times, I was so dominated with this kind of attitude that I did things which, looking back, seem almost foolhardy. But I was so eager to try my hand at new things and so confident that they would come out right that I just “floated” along on a cloud of “I can”. And frequently I found that I could! But to know that, I had to try.

Throughout the years I’ve found many advices and lessons Professor Elke Rundensteiner have given to me through conversations, emails, or just by observing her to be very helpful and encouraging. Without them, I might have never made it to the PhD program. I wanted to share some of them with the reader, and I hope that they may find to be useful to other students as well as professors.

2. SELF-ESTEEM

Everybody in graduate school goes through difficulties. Sometimes you start asking your own self-worth. I know I have. You have to learn to develop a healthy self-esteem and appreciate the value of yourself and your own special talents and abilities (everyone has them). When things don’t go the way you planned – a paper get’s rejected, or experiments fail, or code crushes, or the exam grades are not what you expected, don’t ever put yourself down. There are a lot of put-downs around us, but just *believe in yourself*, no matter how long it takes or how tough it may seem at times.

Advice 1: Never put yourself down.

3. GOAL SETTING

Many students resist the idea of goal setting or they make them so vague that it is almost like having no goal at all. It is easier to just assume everything will work out in the end, hang loose, and “go with the flow”. Whatever will be will be. I used to fill my calendar with many different things and frequently “running around” (aimlessly) day after day. Oh, I was *very* busy, but few of my activities were oriented towards reaching my goal. I’ve learned that you have to set a clearly defined goal to make things happen. Ask other people who have achieved their goals that are similar to yours and aim your goals *high!* Yes, you might not make it to the top, but you will accomplish much more than if you aimed low.

Advice 9: Have a goal in mind. Always aim high.

4. SELF-DISCIPLINE AND HARD WORK

I will not sugarcoat it: hard work is not fun. Hard work is just that – hard work. But the self-satisfaction at the completion of a job well done is really priceless! People who are achievers are very self-disciplined. You may be bright, motivated, have the right attitude, but you will not make it to the top without persistent self-discipline. It takes guts to be self-disciplined, but when combined with persistence it achieves goals.

Advice 3: Develop self-discipline.

5. PERSEVERANCE

Have you ever met certain people who seem to do everything *right* – they seem to never make mistakes, they “never fail”, they are just “perfect”? Nothing could be farther from the truth. Most people do fail. Failure is actually good for you, as long as you can learn from it and not dwell on it.

What separates people is their degree of persistence. Trying once will not do. You’ve got to try and try again. Not every day can be enjoyable or successful. Sometimes you are going to strike out. But you’ve got to try and try again. Perseverance is hanging in there even when the odds stack up against you. Always finish what you started. Go the extra mile and always do more than you are asked and contribute more than is required. Don’t get discouraged and persevere when you believe you are right.

Advice 2: Never give up. Don’t quit.

6. PRACTICE, PRACTICE, PRACTICE!

You’ve probably heard it many times: practice makes perfect. What we do best is what we have most thoroughly learned through practice. Just like musicians credit their proficiency in an instrument to practice, so do we, computer scientists, get better at things through practice. Whether it’s a programming language, writing a research paper, presenting your work, or conversing with someone about research – you will get better by actually doing it. So, practice, practice, practice. And when you are done practicing, practice some more.

Advice 4: Practice it many times.

7. OPPORTUNITY

Too many of us wait for opportunity to come by. Sorry to disappoint, but opportunity never knocks. You can be waiting for months, years listening for that knock, but you won’t hear it. The reason is that opportunity is not some living entity out there, it is in you. *You* are opportunity, and only you can create it. Some people narrowly define opportunity to mean an advancement or some kind of deal, but it actually covers a wide area. It means finding a way to think positively when everyone else around you is bogged in negativism. Opportunity means stop self-doubting, stop worrying about what other people think, stop dwelling on past failures and concentrate on making your own opportunity. How do you do it? Explore. Invent. Adapt. Above all, remain open and optimistic.

Advice 8: Opportunity is in you.

8. BEING YOUR BEST

Many people are held back because they cannot entirely overcome the habits of skipping difficult problems, of half doing their work. “Oh, that’s good enough, what’s the use of being so awfully particular?” the attitude many take. But don’t think you will never hear from a half-finished piece of work. It will never die. It will will arise at the most unexpected moments when you least expect it. Always give your best effort. It is very important that *you* know you have tried your best. You gave the task at hand your all. Make it a rule and always and everywhere put quality into your work.

Advice 5: Do your very best.

9. ENTHUSIASM

The term of “enthusiasm” may sound phony to you. Too reminiscent of cheerleaders or pep talks. True enthusiasm, however, has very little to do with outward exuberance and very much to do with an inner fire. It is amazing how quickly

and effortlessly a task is accomplished when done with enthusiasm. And enthusiasm is so infectious. It is difficult to remain neutral or indifferent in the presence of a positive person. So many times, I would go into Professor Elke's office discouraged or send her a frustrated email, and in return receive a response radiating energy, good humor, and motivation. It was so easy to become infected by her wonderful and positive outlook, and *you* can have that effect on other people!

Advice 6: Remember Research = FUN.

10. IMAGINEERING

When we fail to use our imagination at work, our job becomes a routine. Routine leads to the rut of mediocrity and it is the farthest point possible from creativity, expanding your skills, and finding your best. So try to “spice up” your work and research – use your imagination and creativity. The more ways you allow yourself to view a problem, the better the odds of finding a novel and really interesting solution.

Advice 7: Use your imagination at work.

11. SUCCESS

When we think of success, we tend to think of two questions: do other people think I am a success and do I think I am a success. Success, in order to be meaningful, is a very personal thing. Deep inside many of us may think we are “unworthy”. Others seem to be smarter, or harder working, or more clever, or just luckier – they probably deserve more success. We all have the tendency to compare ourselves with others. I know, I have. But instead of comparing ourselves, “run your race” to the best of *your* abilities. Success must be earned, and the only way to earn it is to utilize whatever combination of talent, skill, and intelligence you possess to the fullest extent possible. Do you deserve success? Absolutely. You owe it to yourself.

Advice 10: Success will surely come.

12. CONCLUSION

Always remember that YOU CAN! Don't listen to anybody. If you have a dream, goal, whatever it is, dare to believe it and try it. Give it a chance to happen! If you have that fire down inside of you somewhere (that's so awesome already!), so do something about it. And don't let anyone else blow it.

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