acm's women in computing
acm-w
ACM-W CIS Newsletter:
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From the Editors

Katie Siek and Suzanne Menzel
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Inspiration and awe — these are the feelings we experienced while creating the newsletter this season. Inspiration comes from the stories that women shared about overcoming adversity. Awe about how the women found creative outlets to shine and serve their greater communities. We hope you have time to read through these stories and reflect. We also hope that you will consider adding your voice to our Summer 2013 issue — abstracts are due on May 10 (http://tiny.cc/ACM-W-CFP-June).

We are excited that Judy Olson has agreed to continue the "Ask Judy" column where she answers your tough questions. If you have a question for her, please consider asking your question here — tiny.cc/AskJudy. This issue, Judy provides some terrific advice on how to say "No," among other gems. We also want to especially thank Robin Jeffries who spent 12 years as our Systers' keeper and helped countless women get answers to their own tough questions. Robin gives some history about Systers and her own insights this month. We hope we can serve our community as well as Robin has for Systers.

From the ACM-W Chair

Valerie Barr
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This is the first issue of the ACM-W newsletter since I officially took over as chair of ACM-W, so I would like to say thank you to a number of people.

First a HUGE thank you to Elaine Weyuker who served as ACM-W chair for many years. It is thanks to Elaine that we have a strong set of programs that annually serve many women in computing and reach out to many people who care about the situation of women in computing.

Second, I want to thank Suzanne Menzel who, with this issue, is stepping down after many years as co-editor of the newsletter. Suzanne has made considerable

Figure 1 *Melanie Wu oversees the ACM-W Communications*

contributions to ACM-W and helped make the newsletter the quality document you are reading right now. As Suzanne departs, we're pleased to welcome Sarah Loos (Ph.D. candidate, Carnegie Mellon) who will be joining Katie Siek as co-editor.

Another welcome goes out to Melanie Wu (Associate Professor of CS, Indiana University) who has taken on the role of overseeing ACM-W communication efforts. Melanie and I are working on a comprehensive communications strategy so that we can better utilize all the communications means at our disposal – web, newsletter, blog, social media, etc. — to better reach our key audiences and do our part to get the word out that women are doing really cool work in computing. So keep an eye out in the coming months as we begin to roll out new and updated communication elements.

This is a very exciting time for ACM-W! There are new regional women in computing conferences in the planning stages, ACM-W Europe and ACM-W India are up and running, and the scholarship program has received additional funding. Thanks for your ongoing interest and support.

Valerie Barr is chair of ACM-W, and Professor of Computer Science and Director of Interdisciplinary Programs at Union College, Schenectady, NY. In addition to her work with ACM-W, she is on the board of the Computer Science Teachers Association for which she chairs the Computational Thinking Task Force. In order to get away from it all, Valerie heads out on her bike, taking along her dumb phone, ensuring that she can stay largely unconnected!

Ask Judy

Judy Olson is the 2011 ACM-W Athena Lecturer. After 40 years in both academics and industry, she has encountered a lot of sticky situations, survived, and, through every phase, was happy. She has advised many younger women in her career and thought she could broaden her reach by contributing this column. Want a question answered by Judy? Ask it at http://tiny.cc/AskJudy

The Never-ending To Do List

Dear Judy:

My advisor is always giving me too much work to do and I am overwhelmed by what to do first. What should I do?

Drowning

Dear Drowning:

Time management is the key here, and perhaps in a future column I'll write up my take on how to do that well. But for now, briefly:

- Make a list of everything for work
- Make another list of everything personal
- Estimate how long each of these is going to take
- Count it up (the total across two lists)
- Indicate your own priorities (across both lists)
- Take the work list in to your advisor
- Ask for advice about priorities, introducing it with the phrase, "Help me think through this…"

Many advisors, upon seeing that there really is a problem, and recognizing how thoughtful and thorough you are, will give you advice about which tasks can be delayed or even dropped or given to someone else.

Then read this column next time for a more thorough lesson in Time Management.

Judy

Local Community Talks

Dear Judy:

I am regularly asked to give talks in my city about my research. The audience is typically filled with community members rather than peer academics. Should I do it?

Puzzled

Dear Puzzled:

It is always flattering to be asked; someone is interested in what you do. But my swift first answer is "no." It doesn't count towards promotion.

However, there are some reasons to do it. In making your work accessible to non-academics, you practice saying why this work matters. This is practice that leads to writing good "Broader Impact" statements in your grant proposals and in convincing people that you've chosen an important problem to work on.

Second, if you need access to organizations for your research (e.g. small business owners who need different technologies than are available), this is an opportunity to make contacts and follow up with interested people.

Other than that, say "no" and spend your time on research! It's hard to say no, but you have to practice saying it in a lot of different, but nice ways. Recently, I said no in the following ways:

- Thank you for inviting me to contribute the book. It looks very interesting. But unfortunately the timing is not right. I am involved in X and Y and will not have the time to properly devote the effort to this project. Let me suggest NAME1 and NAME2 as possibilities.
- Thank you for the opportunity to be the local representative for Y. It is a cause that I strongly believe in. Unfortunately, I am not able to participate at this time. My responsibilities in X and Y are taking up all my time right now, and I would not be able to devote enough time to do the job well. NAME1 and NAME2 are people who might be able to devote some time. Again, thank you for asking.

Judy

Unsolicited Job Offers

Dear Judy:

Every once in a while when I'm giving a research talk at another institution, people ask me if I would consider a position at their university. What should I say?

Asked but not answered

Dear Asked:

Wow. This never happened to me! How flattering.

But this answer has a lot of "well, it depends" in it.

It depends on who's asking.

- If a junior person, this is just an expression of enthusiasm for your work. Smile and say, "Thank you, I'm flattered. I don't know."
- If it's a senior person, this is more serious. They may have the power to actually do something to attract you to their department. Then there are more "it depends:"
  - If it's a place you know and would like to be, you can say, "Thank you for the vote of confidence. We could talk."
  - If it's a place you would not like to be, you can say, "Thank you for the vote of confidence, but I'm happy where I am."
  - If it's a place you don't know if you'd like to be or not, you can say, "Thank you for the vote of confidence. I'm not sure I know enough about how things work here and who all the people are. You talk to your colleagues, and I'll do a little research, and if things look good on both sides, we can talk.

It's always nice to be wanted.

Judy

When to Disclose Two Body Opportunities

Dear Judy:

I am part of a two career couple. In a job hunt, when do I disclose this issue? What are the possible responses?

Two Body Opportunity

Dear Two body:

This is a tricky one. My first reaction is to tell people early. But then, I'm always assuming people are nice and will do the right thing. Not so, I've discovered.

The worry is that you will not even get an interview if people think they're going to have to do extra work to help you find a suitable position for your spouse/partner. That's technically not legal. You have to be given *equal opportunity*. But nobody's policing what's going on inside the search committee's heads.

So, I think the wiser course is to not disclose it until you have an offer. People may have hints earlier in the process and do the right thing, but if not, it's in the offer negotiation that this has to come up.

What kinds of things might they be able to do to accommodate?

- If the spouse/partner is in academics, the chair will negotiate with the appropriate department for a "spousal accommodation" which might involve money from central administration to cover either part of the other position or the other position for a period of time (e.g., 3 years). The spouse/partner would then have to interview just like a regular position, except there's no competition for the slot. The person has to be someone who fits and is of sufficient quality for the faculty to find acceptable.
- If the person is a non-academic, often central administration either offers job search help or makes a connection to a local service.
- Sometimes the hiring organization will do nothing. Bummer. Then you have to find the job on your own. But doing nothing to help is a signal about how much general support they offer and may affect your decision to accept.

On the up-side, hiring organizations should know that if they do accommodate, then the couple is likely to stay with them and thrive.

Judy

Have a question for Judy? Ask here: tiny.cc/AskJudy

Systers: 25 Years of Supporting Women in Computing

by Robin Jeffries
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What is Systers?

Twenty-five years ago, at a small ACM conference, SOSP (Symposium on Operating Systems Principles), thirteen women arranged to sit together at lunch and talk about the challenges they faced being women in a very male dominated field. They agreed to continue their conversations over email. One of the women there, Anita Borg, volunteered to host their mailing list, under the name 'systers' (a portmanteau of systems and sisters).

Over the next several years, word got around to women computer scientists about systers and the many interesting conversations that went on there. Women talked about everything from how to deal with a demoralizing thesis advisor to what to wear on an interview to how to interview while pregnant to how to cope with the challenges of menopause at work. Many women who were not in academia/research labs or in systems joined the list. Anita became the go-to person for "why aren't there more women in computing?" related questions. The list was particularly valued by the members for its rules about staying on topic, no "me-too" posts, 'what is discussed on systers stays on systers', and no flaming (a problem on virtually every list on the internet at that time).

Anita's experiences running systers and as de facto spokeswoman for 'women in tech' issues led her to leave her job at DEC (Digital Equipment – a large computer company of the time) to start the Institute for Women and Technology, now the Anita Borg Institute for Women and Technology (ABI). She had concluded that women were not going to be significant makers of or recipients of technological advances without some proactive efforts, and she wanted to be part of that solution.

I become 'Her Systers' Keeper'

I was doing some work as a volunteer with the brand new Institute for Women and Technology, related to understanding how systers fit into the lives of its users and designing a next-generation better-than-mailing-list software, when Anita became ill. I stepped in, temporarily I thought, to manage the list while she was recovering. This was when systers was in its 13th year. Sadly, Anita did not recover, and we lost her in 2003. I've stayed on as "Her Systers' Keeper", the title that was invented for Anita in the early days of the list, until this year. During that period, the list grew from 2000 members to 3800 members, we started several other lists (for Latinas, LGBT women, academic women, etc.), we started a blog to share

some of our learnings, and we became a mentoring organization for Google Summer of Code to get more women involved in open source programming. The rules established by Anita at the very beginning – only contentful, on-topic, respectful posts – have enabled the list to weather that much growth without coming apart at the seams. In fact, figuring out the balance between letting interesting conversations go where they will vs. allowing so much drift that I get messages reminding me of the role of the Keeper has always been my biggest challenge.

One of the most rewarding programs systers sponsors are the Anita Borg Systers Pass-it-on Awards. These small awards (generally under $1000) enable a woman in tech to continue in school or in another way advance her career, or enable women to do projects that bring other girls and women to computing. These awards have attracted applicants from all over the world, and have introduced me, the reviewing committee, and systers as a whole to a set of women who are facing challenges we couldn't imagine or have designed amazing workshops/classes to share their passion for tech with the next generation.

Over the dozen years that I was Her Systers' Keeper, I've seen systers have a profound impact on the women involved. Here are some quotes I found in my personal files: "Helped me so much in interviews", "Pulled me back from the brink of giving up on a career in IT two years ago", and one of my favorites: "Oh, it's like having a tooth fairy – I put a question under the pillow, go away to work, come back – and find a whole mountain of pearls waiting for me".

Systers outreach

In addition to helping each other, systers at various times has gotten involved in advocating for solving some of the problems we face. In the 90s there were a series of tech company ads that were degrading to women (and I do mean degrading; one of them referred to their software options as "rent, lease or buy", showing 3 pictures of man/woman pairs: a man with woman in a bra top and Daisy Dukes, a pair in their tennis whites, and a bride and groom), where systers set up campaigns to write the company with "I am a technical woman; I advise on the purchasing of software/I am in the demographic for your product, but you lost a sale with that ad". There were also the Barbie chronicles, both the Barbie that said "Math is hard" and the campaign to get Mattel to make Computer Engineer Barbie. I'm sure it wasn't systers alone who changed Mattel's direction in those cases, but we certainly helped.

One of the most satisfying changes I have seen in systers over the years is its growth as an international organization. At one point, we were aware of systers from 43 different countries, from the United Kingdom to Belize and Kenya. Systers has also provided a safe haven for women who are marginalized even more than most of us — American minorities, lesbians, transsexuals. Many of them have chosen not to be 'out' to the full systers membership, but I hear from them regularly about how systers helps them

understand the difference between the problems that arise from their special situation and those that most women in tech experience.

Systers as "advice-column"

While systers works to stay focused on the intersection of women and technology, that covers a lot of ground. There's a lot of sharing of information about conferences, about interesting news or blog articles, about personal experiences. But perhaps the most interesting parts of systers have been the requests for advice. They range from the ordinary: "What do I wear on a job interview" to the truly serious: "My advisor has been making advances. I'm almost done, so it's too late to change advisors. What do I do?" Everyone who posts a request (and we make it easy to do so anonymously) has told me they get many more personal responses than the public responses that the rest of us see, some just saying something like "been there. It sucks, doesn't it?" And many have come back to tell me that systers kept them from dropping out of school or leaving computing altogether.

The advice is not always supportive, though it is honest. Professors on the list tell students what the situation looks like from their perspective; managers tell employees why they are part of the problem. This is arguably systers' greatest strength – that there are women of all ages and career stages, and what we learn from each other is invaluable (and it's not all "older" to "younger"; older systers have had social media "explained" to them, and been told to learn it or become irrelevant, for example).

I handed over the job of Systers' Keeper this fall, at the 25th anniversary celebration, to Rose Robinson, the very able program manager for systers at ABI. I felt it was time for new, younger blood to take the group to its next level. While I miss being at the heart of things, it's sort of like sending one's "baby" off to college – bittersweet, but you know that the changes will be good for both of you.

If you want to learn more about systers, go to www.systers.org. There's a Join link on the page. Experience firsthand what sisterhood is all about.

About the Author

Robin Jeffries is a User Experience Analyst at Google. She has B.S. degrees in Computer Science and Mathematics from the University of Iowa, M.A. and Ph.D. degrees in Cognitive Psychology from the University of Colorado, and more than 30 years of experience in academic and industry research and in product development with more than 100 publications to her name. She received the SIGCHI Lifetime Service Award (2004) and has been listed in Who's Who. She was Her Systers' Keeper from 2001-2012. She is an avid cyclist.

Finding a Great Summer Research Experience for Undergraduates (REU)

by Suzanna E. Schmeelk
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Introduction

Finding a great summer Research Experience for Undergraduates (REU) is a recommended component for a successful and satisfying graduate school transition. REUs are important, according to the National Science Foundation, as they can support, "developing a diverse, internationally competitive, and globally-engaged science and engineering workforce." There are many technology-based research experiences for undergraduates throughout the country – try a search engine. One of the best pieces of advice I would like to suggest is to seek a research experience at a university that you would like to attend. The experience will introduce you to the faculty and resources that the school will provide if you decide to attend. In fact, the experience may sway you, the undergraduate, in a particular direction about attending the particular university for graduate school.

The Research Experience

The research experience can be of many forms. A REU provides an environment for an undergraduate to perform research in a scientific field of interest. Qualifications that a student should have can vary; but, usually, a student is pursuing a degree in the field or closely related field. The REU is usually two months, finishing with a talk, paper and/or poster for presentation. Projects and personal guidance are highly dependent on the program and mentors. This is why I suggest researching a university's research environment prior to graduate enrollment.

TRUST

To offer an example, I recently helped lead an underrepresented group-oriented REU at The University of California at Berkeley at the TRUST Center. TRUST, The Team for Ubiquitous Secure Technology, has an amazing program. The program had many components including: meeting with world renowned faculty and industry leaders, regular cyber security (technology) lectures and informant lectures pertaining to both graduate school and the formal research process. If you look at REUs, try to find one with (at least) matching topics.

To offer you an example of how REUs might be structured, we structured the TRUST REU interactions at many levels. First, we met with the entire REU-body as we conferenced with the ISI at USC. Second, we divided the students into teams where each team had their own personal research questions and weekly meetings. Finally, we had small individual meetings to help students with their own personal research. TRUST is somewhat unusual as it is NSF-funded and encompasses multiple universities. As such, other REUs may not have the resources available to provide multi-level interactions.

Figure 1 Howells Ihekweme TRUST REU 2010

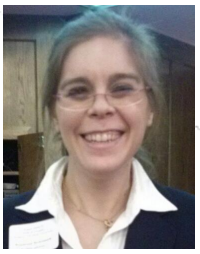
Figure 2 Katherine Gabales TRUST REU 2010

Figure 3 John Mel TRUST REU 2010

As for living, the TRUST program provided housing, stipends and laptops. TRUST treats REU students to many graduate-student benefits such as the library, health center and computer-lab access. Try to find an REU that will help ease your transition to a new and temporary location with such amenities.

About the Author

Dr. Suzanna Schmeelk is a Network Security Research Scientist at LGS Innovations — Bell Labs in New Jersey. She completes a New York State Certificate in Cyber Security at the Polytechnic Institute of New York University in December 2012 and a M.S. in Technology Management in 2013. She is Alcatel-Lucent NRS1 routing certified and has a doctoral degree in Mathematics Education from Rutgers University. Additionally, she holds MS/BS degrees in computer science. She is currently authoring several papers, journal articles and book chapters, which will be available in 2013 and beyond.



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Improvement, or How I Learned to Stop Worrying and Love the Thought of Graduate School

by Kimberly Oakes
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"You're going to stay in-state for college. If you go to grad school, then you can go wherever you want." When my mom said this to me during my senior year of high school, she could not have imagined it to hold any truth. To be honest, I didn't either. We both knew her remark was simply a means to end my requests to go to a school other than The University of Alabama. Four years later, I am thrilled to be at this institution, but I am also excited about the next chapter of my life "wherever" that may be.

Realizing Lack

I was completely uninvolved during my first two years at Alabama. I was not a part of our highly-esteemed Greek system, nor was I involved in any other organizations or extracurricular activities. This fact was magnified when I drafted up a resume. Because of this discovery, I began looking for summer opportunities during the spring semester of my sophomore. On Alabama's computer science homepage, I found an application for a Research Experience for Undergraduates (REU) in Software Engineering. Despite being currently-enrolled in intro CS courses, e.g., C++/CLI and Intro to Software Engineering, I submitted my application. I was the accepted as the only rising junior among 10 rising seniors.

Discovering Research

As the only non-senior in the group, I panicked when one of our weekly tasks was to begin thinking about four graduate schools to apply to, who we would request as recommenders, and what would be included in personal statements. I didn't know what I wanted to go to graduate school for, let alone where! Instead

of finding schools compatible with my interests –not knowing what they were–I decided to look at schools based on location. Fortunately, this search led me to discover an area I might want to pursue: Human-Computer Interaction (HCI). I loved how many different fields it encompassed – education, health, biology, psychology, etc. In HCI, I would have the freedom to pursue other interests, while still applying my computer science knowledge. My REU provided funding for me to attend a conference of my choice. Instead of attending a conference in empirical software engineering –my current research area–I chose to attend CHI 2012, ACM's international conference on human-computer interaction. Because this decision was made nearly a year before the conference, I had a lot of time to prepare for where I would be the next summer.

Gaining Experience

The following fall semester, despite having spoken maybe two words in my year of being an ACM member, I decided to run for an officer position. To my surprise, the first step out of my comfort zone was a success: I was elected treasurer for Spring 2012-Fall 2013. Being an officer taught me how to better communicate with peers and faculty.

Meanwhile that fall, I begun looking for REU programs, but never found one that quite fit what I was looking for: an HCI program dedicated to health, wellness, nutrition, or exercise. What I did find was a lab at the University of Colorado at Boulder that specialized in exactly this. Though they were not currently hosting any REU programs, I decided to email Dr. Katie Siek, the professor, asking if she had any summer research opportunities available. Almost immediately, she emailed me back with one of her graduate students' research plan and asked if it would be something I would enjoy working on: designing a system for patients with diabetes. Of course I would enjoy that. After a few more emails, we arranged to work together through a Distributed Research Experience for Undergraduates (DREU) program.

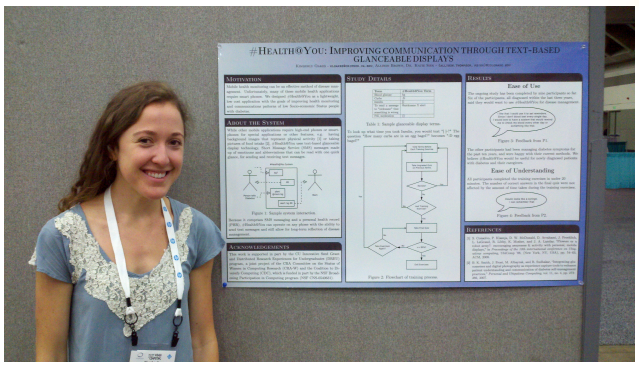
That summer, I never felt like a guest in the lab. Being in that research atmosphere, I felt a huge sense of belonging. Every day I went to the lab, I knew I could do it for the next 5 or more years of my life. Being around people who cared, not just about computers, but about the health and wellness of the population made me eager to learn as much as I could during the ten weeks I was there; I wanted to make the most out of the time that I had.

After gaining experience in HCI, I knew it would be beneficial to also have experience in psychology. During the fall of my senior year, I became involved in our Psychology Department's Friendship Lab. On the first day of my Developmental Psychology class, my professor announced that he selects undergraduates to work in his research lab where he studies friendship and jealousy among teenagers. I

applied, was selected, and am the only computer science major in a team of approximately 20 undergraduate and graduate students.

Finding Graduate Schools

So, how did I begin selecting graduate schools I wanted to apply to? Exploration. During my junior year I began my school search. Despite the fact that I was a year away from applying, it was helpful to know what schools were expecting (from GRE scores to the number of recommenders). I also read articles on research I could imagine myself working on, noted their schools, the papers they cited, and repeated the processes. With every school I looked at, I asked myself, “Could I see myself doing research at this institution for the next 5-6 years?” and “Would this school provide me with the opportunities for my research to flourish?” If I could answer yes to both of these questions, I would add them to my list of schools that included application deadlines, number of recommenders required, and any additional department information. This quest extended into the fall of my senior year, when I attended Grace Hopper Celebration of Women in Computing. The DREU program selected a group of participants to present a poster of their summer research, and I was one of them. The conference became another part of my graduate search; there was a plethora of schools that had booths set up. I was able to walk around and talk to the representatives about their university in person. By doing so I was able to both ask questions that might now be answered on the website and let myself be known.



Presenting a poster at Grace Hopper

I began applying to schools in October. Figuring out who to ask – and ask early! – for letters of recommendation was the easy part. I asked two professors with whom I’ve previously done research, and was fortunate enough to have another professor who consistently told me she would love to write a letter for me. This third professor not only taught some of my lower- and upper-level courses, seeing my growth as a student, but was the faculty sponsor of our ACM chapter. The challenging part of applying was the personal statement. Despite having written one during my first REU, it was still difficult to talk about myself. To write it, I had to sit down and evaluate my strengths and weaknesses, what I wanted to gain and contribute to graduate school, and what made me an attractive candidate. I let anyone who was willing look over it, from a classmate also applying to graduate school to a professor who has served on NSF’s Graduate Research Fellowship Program review panel.

With all my graduate applications submitted, the waiting game has begun. I am in a completely different position than I was four years ago. My 17-year-old self had not done extensive research on several schools and sent out multiple resumes and applications. I knew that I was going to spend my next four years at The University of Alabama, even if I didn't know what I was going to study at the time. Now, four years later, I know exactly what I want to study. Where it is, however? Well... we'll just have to wait and see.

About the Author

Kimberly Oakes is a fourth-year undergraduate at The University of Alabama majoring in Computer Science and minoring in Psychology. She expects to graduate in May 2013, and pursue a Ph.D. in Human-Computer Interaction. When she is not studying, she is either at CrossFit, in the kitchen cooking vegan food, or outside walking her dog.

"W" is for Tenacious

by Jean H. French
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Introduction

My mother once said that I was the most tenacious person she ever knew. At the time, I didn't even know what it meant. The third of six children (Figure 1), I was the achiever, but not overly confident.

In the seventh grade, the teacher asked us to stand if we thought we earned report cards with all "B"s. As this was a typical public display in a Catholic school, I joined those who were standing. She continued by asking us if we felt we earned report cards with all "A"s. I sat down. "Jeannie, you don't think you made first honors? You need to stand back up." I stood up.

Figure 1: The only surviving photo with all six of us from childhood. I am the one in front wearing red.

"On a high school survey, one of the questions asked the level of education I wanted to achieve. A little embarrassed, I asked which was the highest of the options. The moderator said it was a Ph.D. I took my Number 2 pencil and filled in the circle next to Ph.D." (French, 2011)

Challenges and Changes

Just a few weeks after the report card occurrence, life took a number of mostly unpleasant turns. We didn't have the pleasant childhood I had imagined. Over the next five years, along with the separation of my parents, we lived in uncertainty, sometimes hungry, and even homeless. I attended five different schools in two states. My third high school was an over-crowded, inner-city school with few books, many threats, but teachers with big hearts. During my first day in geometry, a girl spent the class quietly threatening me for taking a seat. Regardless, I spent my days studying and working several part time jobs. I graduated as valedictorian.

I attended my first choice of college, a local university, while working three jobs. I moved into the dorm, elated and guilt-ridden, as I was convinced I would be more help to my family if I could earn a college education, something I feared would not be a priority if I lived at home. During my junior year, my family's apartment burned down resulting in homelessness for my family once again.

It's My Fault

While working full-time, I finished my Master's degree. All of my siblings grown, my brother suggested I return to South Carolina, where he and my older sister remained since my family's first move. After I relocated, I was employed at a local university and quickly progressed professionally in the field of Information Systems, even though I was usually expected to provide baked goods for various office functions. While teaching part-time, I decided it was time to pursue my Ph.D.

During my doctoral orientation, I noticed that I was one of the few women. The speaker interrupted my thought when he said, "Everyone, please look at the person to your left and right. Statistically, two of three of you will not finish this program." The buzz in the room grew as everyone joked about the announcement. I decided that the guys on either side of me were going – not me. As everyone shuffled out of the auditorium, I paused to meet the speaker. I inquired about the number of women in the program. A boisterous man, he chuckled, "It's your fault for picking a male-dominated field," and walked off. I was strangely both insulted and motivated.

Premature Delays

Figure 2: Graduation with my girls

Excelling in my Ph.D. program, I never thought the dissertation phase would be the possible end to my career. By then, I had gotten married and transitioned to an academic, but non-tenure track position. Shortly after accepting a promotion, I found out I was pregnant with my first child. I had not yet completed my dissertation, but thought I could finish shortly during the next semester. My daughter was unexpectedly born prematurely almost two months early. She was whisked away so quickly that my husband did not get to hold her until she was several weeks old. She was transferred to an intensive care unit in a hospital that was a three-hour round trip from home. Progress on my dissertation faltered. Though I was given two extensions to finish my dissertation in order to remain in my tenure-track position, I failed to meet the deadlines. I returned to my former position, embarrassed and ashamed.

About a year after my daughter was born, I became pregnant with my second daughter. I feared the worst, but welcomed a full-term, healthy daughter. After her birth, I would get up with her in the middle of the night, like mothers of infants do, but instead of going back to bed once she was settled, I would work on the final portion of my dissertation.

When my second daughter was about six months old, I defended my dissertation, and proudly held both girls in my arms at graduation (Figure 2). Since then, I returned to my tenure-track position, and am convinced a woman with tenacity ("W" is for Tenacious!) can overcome even the most difficult challenges!

About the Author

Jean French, Ph.D., is currently an Assistant Professor of Computer Science & Information Systems at Coastal Carolina University. She earned her BS in Environmental Geosciences from Boston College, an MBA from Umass / Boston, and a Ph.D. in Computer Information Systems from Nova Southeastern University (2011). A native of Boston, Mass., Dr. French, her husband, two girls (two and four years of age), and two mini-dachshunds currently reside in Myrtle Beach, SC.

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A Fork and a Join: Career, Family and the Virtual office

by Kamna Malik
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Introduction

It was with a mix of conviction and numbness that I walked into my boss' office in the summer of 2007 and announced my decision to leave my workplace after fourteen performance-packed years at one of the top 10 business schools (b-schools) in India within my geographical area. I had accepted an offer to join an online b-school and operate from a virtual home office. At the time, this decision was entirely professionally motivated, but as I reflect over the past few years, I realize that the move to a virtual office has been a blissful "join" of the "fork" between career and family that I had previously accepted as an integral part of my life. This join has elevated me to a new normal.

The Fork of Life

The term "virtual office" is said to have originated in 1983 (http://www.chriskern.net/history/myWord.html), but it appeared on my radar about 18 years ago as a wishful and persistent thought that occurred to me after I became a mother. Every time it popped up, I'd shrug it off and carry on with my struggle to nurture the growth of my career along with my family. The rise of the personal computer in the 1990s, and the subsequent Internet revolution, changed our daily lives. Although the idea of a virtual office was no longer a futuristic concept, organizations still had a long way to go to incorporate flexibility and family friendliness into their work cultures.

I was young, enthusiastic, and ready to take the bull by the horn. Having topped the masters' class, and secured one of the highest paid jobs in a class with just 10% women, belonging to a minority never seemed like a constraint. Life was good, with higher job responsibilities and promotions coming my way sooner than expected.

I was reporting to and competing with male colleagues whose wives were mostly homemakers — by choice or by force. Many of my female friends had either sacrificed their marriage or their career in an attempt to save the other. With time and job responsibilities, my family pressures started to mount, owing to social, biological, and historical reasons. I found myself assuming the role of caretaker for everyone in my family, trying to live up to the tradition of the iconic Indian lady who is a symbol of love, care and sacrifice. Contrary to my expectations, the pressures only multiplied with time as growing kids and aging parents needed more attention and so did the increasing responsibilities at work. Career and family looked like a fork with ever growing and divergent prongs that never seemed to meet. I started to feel the pinch of gender inequality, but because of my passion for computing and belief in women's liberation, I kept going. Deep within, I had accepted my life as is — as an ever-expanding fork.

Calculated Risk

When I received the virtual job offer, I was in a quandary. It was a tough decision as it meant relinquishing the comfort, recognition, and power, as well as the emotional bonds, that I'd built over the years, but the excitement of exploring a new world was tempting. The time was ripe, with the growth of the social web, virtual worlds and eLearning. If, as an IT professional and educator, I could not take this plunge, who could? If I did not step forward now, age might catch up with me and I might miss the train altogether.

Working from a virtual office and eLearning are still not mainstream, especially not in my country. Nevertheless, my long cherished dream and the opportunities presented by my new employer gave me courage, and I plunged ahead.

Initial Shocks

Handling office chores was not an issue as my teaching responsibilities, academic roles, and institutional processes functioned much the same. I was able to start working from my virtual office soon after the orientation week. My time was now for my work alone. The morning blues and the traffic snarls were out of my life.

However, then came the social shocks. Some of my prior colleagues inquired if I had differences with the management or *succumbed to family pressures*. Neighbors assumed that I had quit working because my car remained in my driveway. Relatives wondered *if I was really drawing a paycheck*. Every one in my *family assumed I was now fully at their service* and that I had magical powers for context switching. It took me some days to absorb all this, but most of these shocks settled down within a month. There was no use justifying my position or decision to anyone as I was clear on my goals. Instead, I focused on

following rigid work hours to avoid getting trapped in domestic duties. I had to prove myself in a totally new context.

Intermittent Issues and Conflicts

My time was my own — no commuting, no pop-in visitors, no coffee meetings, no walk-in booksellers, and no compulsory teaching hours. The learning curve became steeper as I started digging deeper into the online world of business and education — a world that I had largely ignored in the day to day of the brick and mortar environment that was (and still is) much lower on the e-readiness meter.

My physical fatigue subsided. My legs and my voice were unstrained now as my teaching duties transitioned from classroom-based lecturing to asynchronous online facilitation. But it did not take long before the fatigue manifested itself in my eyes, neck, back and wrists. I added some rotary exercises and walks to my daily routine to counteract the health hazards of excessive sitting and computer use.

The more time I spent on my computer, the more I *felt disconnected with the physical world*. The physical meetings were reduced, as my new employer, colleagues, and students all resided in different time zones. There were moments when long sessions on the computer put me into a *low or silent mode*. I missed the smiles and the greetings I often received from students and colleagues as I passed through the corridors. Many people around me still did not understand how a virtual office or company worked. A fear of *loss of social power and identity* had started to seep into my consciousness.

My spiritual powers came to my rescue this time. I restored my belief in myself, drove out the thoughts of pseudo power, and reminded myself that my work is real and the respect and identity that sustains is that linked to my professional excellence. I joined the local professional chapter and also started accepting select invitations for guest talks and consulting in the region. Though an expected norm for an academician, such tasks were earlier too much of a struggle. Today they are welcome opportunities that help me balance my physical and virtual abilities. They also give me a chance to motivate others to consider the potential of the virtual office for them.

Another jolt was when I discovered that I had to handle my *income tax and other legal employment matters* on my own because my employer was in another country and jurisdiction. My scope of self-services was extended, but it was a good bargain.

Sustained Advantage

Luckily, most of the conflicts I encountered were manageable and with each resolution, I realized the increasing personal, professional, and social advantages that a virtual office brought. (For a quick overview, see Figure 1: Pros and Cons of the Virtual Office.)

The pseudo flexibility I'd experienced in my earlier job was replaced with *real flexibility*. Earlier, flexibility meant a bit of relaxation during work hours but there was no concept of spacial flexibility. Now I can attend to meetings and class discussions even while on the road or out of the country. My office runs uninterrupted, even during difficult times when I've attended an ailing family member.

Earlier, I could not consider leaving my home for an international assignment, which is an important aspect of career growth. Now, I participate in the *global, multi-cultural community* on an ongoing basis, without the guilt of leaving my family or country.

The near elimination of overheads such as physical fatigue, morning blues, and work-home role conflicts leaves me with much more time and energy to do consulting work, join social clubs, attend family gatherings and also pursue my hobbies. I spend more time reading and writing. I have actually become more punctual, organized, multi-faceted and social. Not to forget, the virtual office is still a "new age" work model and I am excited to be an early bird, navigating new horizons and contributing my bit to technology adoption as well as saving fuel while avoiding traffic jams and pollution.

To quote Arnold Toynbee, "the supreme accomplishment is to blur the line between work and play." A virtual office is a sure catalyst towards this accomplishment. I encourage more people and more policy makers to experience and facilitate this model if they are truly serious about increasing productivity and work-life balance.

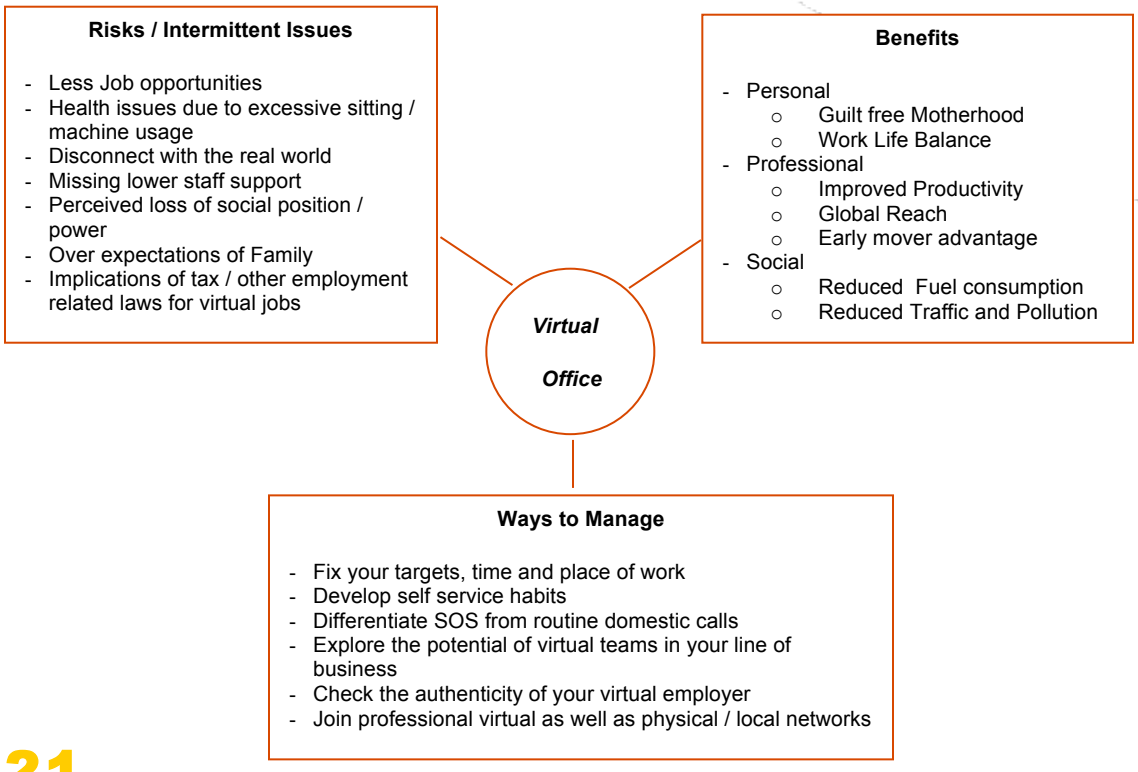

Figure 1: Pros and Cons of the Virtual Office

About the Author

Kamna Malik, PhD, is currently Associate Dean, Research and Discipline Chair of Software Systems and Strategy at GlobalNxt University, Malaysia. She started her career with software development and gradually migrated to face to face and then to online management education. Over a span of 23 years, she has worked with some of the leading organizations and b-schools in the region and has managed diverse functions and initiatives spanning practice, education, research, publications and consulting. Her broad teaching and research focus lies in enabling better use of IT for improved business value. She lives in India with her husband, two daughters and parents-in-law.

Inspiration Lost and Found – The Rocky Mountain Celebration of Women in Computing (RMCWIC)

by Darlene Banta
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Introduction

Do I love my job? Is this the right career for me? Before I attended the Rocky Mountain Celebration of Women in Computing (RMCWiC) conference I didn't know the answers to these questions. RMCWiC was held November 1-2, 2012 in Fort Collins, Colorado.

I had forgotten how much I love computer science. I had forgotten what it was like to interact with other women in computing. After the first night of the conference my passion for computer science reawakened. On Friday my excitement grew and by the end of the conference excited energy buzzed through me. My heart screamed I do love computer science and it is the right career for me!

2012 RMCWiC Conference Attendees

What Is RMCWiC?

RMCWiC began as a Colorado-based Regional Celebration conference for women in computing to provide networking opportunities, social support, encouragement, and opportunities to present research. It has been held every two years and this year the name changed to reflect the growth and regional influence of the conference.

The conference featured two key note speakers: Dr. Mariana Vertenstein, the head of the CESM Software Engineering Group at the National Center for Atmospheric Research, and Dr. Adele Howe, a professor of computer science at Colorado State University. Additionally there were panel discussions, birds of a feather sessions, technical presentations, and a poster fair.

A game night the opening evening of the conference allowed attendees to interact with each other on a casual level. The variety of board games and video games encouraged participation. I even felt comfortable enough to demonstrate my terrible dance skills in a few rounds of *Dance Dance Revolution* (something I would never dream of at other conferences I've attended!).

Do Women-Focused Conferences Matter?

I believe the comfort level I experienced when interacting with others technically and casually is the true value of women-focused conferences.

The little doubtful voice in the back of my head vanished! The voice that said, "Speaking up will just make you stand out more." The voice that said, "You don't want to sound dumb; that would just further prove

that women shouldn't be in computer science." The voice that I normally have to suppress. The voice that constantly nags. The voice that never seems to shut up, was finally quiet.

In college, I believed that women-focused organizations and conferences increased the divide between men and women in computing. Isn't this just a different form of discrimination? Our differences are going to be amplified! As a woman I wanted to fit in; I didn't want to be different and to standout. It wasn't until I took a Feminist Philosophy class that I began to question my view. Rather than women trying to be more like men, the professor asserted that society needs to equally value masculine and feminine traits.

After six years working in the industry, I have to say that this type of conference is the most valuable conference for any woman interested in computing. If you think you are the only one feeling like an outsider, questioning whether you belong, questioning whether you are good enough, you are not alone! The experiences were indispensable: knowing that the voice in my head can disappear, knowing that other women share my experiences, knowing that this is the right career for me.

Women in Computing: Break Stereotypes and Be YOU!

This was the title of the birds of the feather session I co-presented. Prior to the conference, we researched why there are historically few women in computing, the consequences, the importance of diversity, and the changes we can implement. During the talk we asked the audience to brainstorm answers and solutions. The group's feedback was remarkably close to the research. For the details of our research and audience's feedback visit http://bloggінglikeagirl.com/2012/11/11/women-in-tech-who-cares/.

We also discussed our experiences as women in computing and shared our desire to break the stereotype of the computer scientist as the pale male hacker who lives in his mother's basement. To break the stereotype, we need to be ourselves; we can only change the image of the computer scientist by becoming part of the new image. Although difficult, I have learned that I am the strongest and most confident when I am just myself; when I authentically express who I am, what I think, and what I believe. This is what I strive to achieve every day and the core message I shared.

Conclusion

I want to truly thank all the organizers of the conference for creating an inviting and encouraging environment at the conference. I am inspired by all I met the conference. See if there is a Regional Celebration of Women Conference near you (http://women.acm.org/participate/regional.cfm). Thank you.

About the Author

Darlene Banta is a Senior Software Engineer at Schneider Electric in Fort Collins, CO. She graduated from the University of Scranton with a BS in Computer Science, Mathematics and Philosophy. When not working, Darlene enjoys running and hiking with her Australian Shepherd Desi, cooking, and eating (they all balance each other out!). Darlene also has been involved in Toastmasters, an international public speaking club. You can follow Darlene on twitter at @dbanta6 or on her blog http://www.bloggginglikeagirl.com.

Conference Report — NZ_OzWIT 2012

By Annemieke Craig and Catherine Lang
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Introduction

The first ever New Zealand and Australian Celebration of Women in IT Conference (NZ_OzWIT) was held in beautiful Christchurch in October 2012. While this was the 12th Australian celebration of women in computing it was the first joint one with New Zealand women.

Alison Clear from CPIT (Christchurch Polytechnic) was overall Conference Chair, Catherine Lang (Swinburne University) and Annemieke Craig (Deakin University) were co-Program Chairs and Judy Sheard (Monash University) and Diane McCarthy (CPIT) completed the conference committee.

Christchurch welcomed us with a bit of an earth shake, 4.1 on the Richter scale, but we were all chatting so much that we did not notice until someone told us to move away from the windows!

Nicky Wagner MP opened our conference and emphasized the need for IT to increase diversity in four areas; gender, background, lifestyle and nationality. This was followed by Professor Dame Wendy Hall's keynote, delivered via Skype live from Southampton where it was 1:30 am. We learned about Wendy's journey and the stellar research she has been involved in with leading thinkers such as Tim Berners-Lee. Wendy reminded us that we are in a constantly changing frontier and that even the creators of the World Wide Web did not know what it could do until it was invented, and they are still learning. She emphasized the importance of Web Science to the future of our discipline.

Figure 2 Some of the conference delegates

The first day of the conference was enriched by Professional NZ Women in IT sharing their personal journeys. These strong successful women talked about how they chose this career out of convenience, challenge and passion. This session highlighted multi-cultural New Zealand, with several of the women choosing this country as their home.

The academic stream of the conference provided the underlying theories that attempt to unpack the reasons behind the narrowing diversity in IT. Stereotypes, self-efficacy, confidence, support groups were all mentioned within this masculine culture and strategies to persist and flourish were shared.

The first day of the conference concluded with a student poster session that demonstrated the varied and creative applications and research into aspects of ICT that New Zealand students are undertaking. IITP, the New Zealand IT professional society provided a networking opportunity for attendees, and then we moved on to a wonderful Thai dinner at a local restaurant.

Day 2 of our conference was energetic and enthusiastic. Kay Giles, CE of CPIT relayed her experiences in the Christchurch earthquake, managing running a department when her house and belongings were all destroyed. Her advice to us was to put family first—then the rest will fall into place. Kay's observation that long hours does not equal increased productivity was a gentle reminder that it's not the hours you spend at your desk that are important but rather the outcomes from the time you do spend there.

This was followed by a keynote by Lyndal Stewart who has a very impressive career timeline to share, despite being quite young. From "DBA to CEO in 15 easy steps" was both entertaining and informative. Lyndal reminded us that enthusiasm is infectious and that we should treat time as a precious gift, as well as many other nuggets of advice.

We had an 'influencer' panel with three business leaders and led by Jo Miller. Each leader explained their styles, Sue Wilkinson from Hairy Lemon used the bird analogy, and eagle who facilitates conversation, Melanie Tobeck from Ripped Orrange suggested her style was persistent, even dogmatic with more inquiry and less statements as a meeting motto. Jo Healey from Fujitsu suggested her style was of an active listener, a leader who stands on other's shoulders. These women 'run their own game' and have created the ICT business environment that works for them.

The final session of the conference was led by Jo Miller who led each of us to 'Build our own Brand'. It was noisy, networking, energetic, and gave every attendee solid takeaway advice for the future.

The recurrent themes from the sessions and networking were: persistence, challenge, passion, enthusiasm, growth, and balance. Every one of the fifty attendees left well prepared to go forward and model the workplace culture they wanted, mentor women to enter computing, as well as become leading influencers in their organizations. We would like to thank the sponsors (ACM-W, Microsoft and IITP) for their support, without whom the event would not have been possible.

About the Authors

Annemieke Craig is an Associate Professor at DeakinUniversity in Geelong, Australia. Catherine Lang is an Associate Professor at Swinburne University of Technology in Melbourne, Australia. They are both have a passion for encourgaing students to enter the industry and advocate far and wide for opportunities for women to develop and lead rewarding careers in IT. More information about them can be found at
http://www.ict.swin.edu.au/ictstaff/clang
http://www.deakin.edu.au/buslaw/infosys/staff/profiles/craig.php

Dates and Deadlines

- *March 1* — Applications open for Opportunities for Undergraduate Research in Computer Science (OurCS) at Carnegie Mellon University, October 18-20, 2013. OurCS is a three-day, hands-on research workshop, offering undergraduate women from around the world the opportunity to work with leading CS researchers in academia and industry. Apply here: http://www.cs.cmu.edu/ourcs/
- *March 15 or March 16 (depending on submission type)* — Grace Hopper Celebration of Women in Computing submissions due. More information is available here: http://gracehopper.org/2013/participate/call-for-participation/
- *March 30* — ACM-IEEE CS Eckert-Mauchly Award due. More information is available here: http://www.computer.org/portal/web/awards/Eckert)
- *May 10* — Submit an abstract for the Summer ACM-W Newsletter.
- *Rolling Deadline* — Consider applying for an ACM-W Conference Scholarship – these student scholarships provide support for women undergraduates and graduate students who wish to attend research conferences. Deadline information is available at http://women.acm.org/participate/scholarship/index.cfm. Information about scholarship recipients and their conference experiences is available at http://women.acm.org/participate/scholarship/in_her_own_words.cfm#acmwscholars.
- *Anytime* — Consider nominating or hosting an ACM Distinguished Speaker - http://dsp.acm.org/