Conference Reports

WiAC '13: 2013 USENIX Women in Advanced Computing Summit

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Opening Talk: Computational Zen
Allison Randal, DrugDev, Inc.

In her opening talk, Allison Randal gave the personal story of her own career path and offered advice for women entering the field of computing. She reflected that other women's talks on the subject sometimes focus on anger at being treated badly. In contrast, Allison shared her positive experiences and worldview in hopes that it could help others.

Allison began by speaking about her family life. She had many younger brothers, which ended up helping her in her career as she felt more comfortable among male coworkers. Her father was a programmer and computer science professor, and Allison took an early interest in computing so that she could spend more time with him. For her, computing was always a social experience: it meant things like building games and writing software with her family. At a younger age, she spent some time in eastern Africa and witnessed strict gender roles firsthand, but saw them as a curiosity, something that did not apply to her.

In college, she became bored with computer science, and went on to study linguistics instead. While working as a field linguist in eastern Africa, Allison developed health problems and had to change careers. She wanted to try computing, so she became a software tester at her father's company. Later, she worked as a Web designer for an online bookseller. Three months in, she asked her manager about working as a programmer instead, and was almost immediately promoted to the development team. For Allison, advancement in her career has always been about following her passion rather than a specific goal. She got into the open source community, and discovered that open source was doing things that mattered by fundamentally changing the way that innovation happens. It was also social, allowing her to connect with others; and it allowed her to travel, speak at conferences, and meet new people.

Allison spoke about her own motivations and encouraged the audience members to find what motivated them, even if they felt it was not what their motivation "should" be. Western consumerist culture often tries to motivate us with money. For Allison, monetary rewards are a nice bonus, but money has not been what guided her on her career path. She may have ended up working in a leadership position, but she was not motivated by recognition or power. Instead, she has been motivated by the desire to help and empower other people to succeed. In her career, making the company successful is about helping someone's dream become a reality. Another motivation is wanting to change the world and make an impact on people's lives. Finally, the satisfying feeling of completing a project drives her to push ahead and do her best work for the company. Whatever they may be, your motivations can give you strength, and can help you to continue on when things get tough.

Allison continued to give career advice to the audience that stemmed from her own experience. She herself has struggled with fear since grade school. She advised us to develop a coping mechanism, but also to remember that fear is a great motivator for being well-prepared. She advised against resorting to anger after a bad experience: with anger it is easy to tear things down, but not as easy to build something better. She advised us to be humble, and to be authentic and true to ourselves; to keep learning all the time, to continue to grow and change, and to take risks and do things we care about, even if they may only pay out much later.

Setting the stage for later talks at the conference, Allison spoke of men who speak prejudicially against women. Often, they are only speaking out of ignorance, not prejudice. They are unaware of the negative consequences of their words or actions, and pointing this out kindly and nonthreateningly may be enough for them to change their views and be more considerate of others. This topic became a common theme across several talks. Later in the conference, we discussed some common prejudices and biased actions, made by both men and women, and ways in which to address them, making the workplace better for all involved.

Building a Successful Technology Career
Dawn Foster, Puppet Labs

Dawn Foster of Puppet Labs spoke to the audience on how to plan and build a successful career in the tech industry. Her advice came from 12 years of experience working in open source communities, building her own career, and observing others. Her advice consisted of four parts: getting a great job, making the most of that job, becoming an expert, and planning your overall career.

Throughout the talk, Dawn reiterated how important it is to build a network and list of contacts in the industry. Not all job openings are advertised or even posted, and having a strong network can give you access to otherwise unknown possibilities. Dawn obtained her first job because her stepfather worked on the company's factory floor and sent her resume to its IT department. The lesson here is to not underestimate contacts, including friends or family who may not work directly in the technology field.

Dawn next discussed the skills needed to find a great job. When looking for a job, the "required" skills listed for the position are often more of a wish list than a requirement. That is why many

entry-level jobs ask for prior industry experience—these requirements are highly flexible, and you should never let a gap between your skills and "required" skills prevent you from applying for a job. Likewise, having a bachelor's degree in your field is not always necessary if you have equivalent experience. Getting a new degree is likely not worth the cost.

It is, however, always a good idea to keep learning new skills and show that you have done so. There are lots of books and resources online such as Codecademy and Coursera that allow you to continue to learn and gain relevant experience. Source code repositories such as GitHub are great for demonstrating your work to a potential employer. Any new skill—whether it is public speaking, organizing events, or learning a new platform or language—can be acquired through practice.

Dawn's last piece of advice for finding a job was on how to negotiate pay. Not every offer must be negotiated, especially if it is a fair salary for you and for the company. Dawn recommended to set a number that is on the high side of what you expect, but is still realistic, and to set a bottom number around your current salary. You should also consider other incentives, such as stocks, bonuses, and other benefits, in addition to salary.

Once you have a job, you should start to make the most of it. First, this will require having contacts both inside and outside the company. Find mentors and allies who can help you navigate areas of your job that you are unfamiliar with. Look for other opportunities within the company that interest you most—this may involve volunteering for work which will help build on your skills or give your career a boost down the road. It is also important to show off the work you have done to your manager through one-on-one meetings, status reports, or even by giving a talk to your company on the impact of your work.

The next step in your career is to become an expert and earn the respect of others for consistently producing great work. One way to do this is to share what you know by writing documentation for your team or a how-to guide for users. Creating a personal brand by starting a blog or Web site and managing your online presence can also serve to inform others of your expertise and provide you with potential opportunities for career growth. Public speaking, whether at your company or at tech conferences, is another great way to enhance your public image.

Finally, Dawn advised on how to plan an overall career. First, you must figure out what kind of position you want in the long term. You can do this by observing others in the workplace: Dawn realized that she did not want to become a corporate executive after observing the executives at her workplace. Create a long-term goal for yourself, and map out the necessary skills you will need to get there. However, once you have a plan, do not be afraid to deviate from it—you should constantly revise your plan based on your likes and dislikes and take advantage of random opportunities.

What Does Feminism Have to Offer Me? Pragmatic Feminism for Computer Folks

Beth Andres-Beck, TripAdvisor

In her talk, Beth Andres-Beck spoke of how feminism can be a useful tool in the field of computer science, and pointed out instances of sexism that are sometimes overlooked. It is important for those of us in the tech industry to use feminism to create basic equality for men and women, and to change the dynamic in an otherwise sexist field.

Beth first described what is meant by "the patriarchy" in feminist discussions. Google Dictionary defines it as "a system of society or government in which men hold the power and women are largely excluded from it." However, this still talks about outcomes; it may be more useful to look at the patriarchy as a system of values. In this system, women may be valued, but men are valued more: masculine traits are valued over feminine traits, male desire is valued over female autonomy, and conformity is valued over deviance. One manifestation of this is that in our society, the default person is assumed to be male—one must specify that a person is female, but not vice versa.

Feminism is important for computer science because, as of now, women are so grossly underrepresented in the field. Starting in early childhood, young women are given the message that computer science is for boys, not girls. In Beth's words, this leads them to miss out on the "happy accident" leading them to computer science. The problem is not getting better with time: as an example, the percentage of computer science Ph.D.s awarded to women has flat-lined at less than 25 percent over the past decades and has shown no improvement since 2002. One reason for this gender divide is a lack of ambient belonging—that is, women feel that they do not belong in the field. If college freshman women are given a survey of their interest in computer science, their answers will in part depend on their surroundings: women given the survey in a room with landscape scenes on the walls will rate as more interested than those in a room with "geek" items such as World of Warcraft posters or a statue of Darth Vader. To change the dynamic and the gender divide, we must change the image of computer science.

The patriarchy in computer science manifests itself in several different ways. One is that men often value having women to date over having women as peers. Another is "benevolent sexism," where well-intentioned men try to protect women from the world—however, this can be just as harmful as malicious sexism. Instead of putting women on a pedestal, it is better to give them a place in the community. Alternatively, saying that women are "free to choose" to be masculine is not giving them a real choice at all; instead, feminine traits should be welcomed into the workplace just as much as masculine traits.

In response to the sexism of society and of computer science, Beth suggests that we hack society, figure out what needs to be changed, and try something to fix it. First, we must label sexism as sexism. Rather than walking on past and pretending the problem does not exist, we must acknowledge when our peers make a sexist comment or hold a sexist attitude. Next, we must make the sexist uncomfortable so that the behavior will not continue. One strategy is to make the conversation about them: for example, if someone who is hitting on women at conferences says, "I'll never get a date unless I hit on women," you could respond with "You won't be allowed at conferences again if you hit on women." Another strategy is to make the conversation about you: you are a specific woman, and you are also affected by their behavior.

We want to change the gender dynamic so that this community can be a place where we are all proud to be programmers. We are not "born as" programmers, and it is counterproductive to tell others that they do not belong just because of their gender, personality, or any other trait. We all belong in this community, and we do not need to qualify that. Even if someone is very different from you, do not alienate that person. Instead, make them feel welcomed, support their sense of belonging, and accept that you can both be programmers, despite your differences.