

Impostor syndrome-proof yourself and your computing community

Impostor Syndrome-Proof Yourself and Your Community is a post by Mary Gardiner and Valerie Aurora, co-founders of the Ada Initiative. It appeared in the USENIX blog at <https://www.usenix.org/blog/impostor-syndrome-proof-yourself-and-your-community> in October 2013.

“In every job I’ve had in the last 25 years, I’ve been the first woman to hold my position—head of computer science and dean of science at the University of British Columbia, dean of engineering at Princeton, and now president of Harvey Mudd College. As my career progressed, so did the intensity of my feelings of failure.” - Maria Klawe, Harvey Mudd president

“I can't do this. I haven't done enough experiments. I haven't got enough data. I can't write the paper well enough yet or give the talk.” - Cherry Murray, dean of Harvard University's School of Engineering and Applied Sciences

If Georgia or Noopur’s thoughts sound familiar, you are probably good at what you do, and also one of the many victims of Impostor Syndrome [1].

Impostor Syndrome is the feeling that you're a fraud, that you're not skilled enough for career, and that you will be found out and exposed as an impostor. More people than you realize—including experts whom you know and respect—have Impostor Syndrome, but you don't hear about it for a simple reason: If you're afraid of being exposed as a fraud, the last thing you want to do is tell anyone about it.

What Causes Impostor Syndrome?

Where does Impostor Syndrome come from? In fields such as academia and technology, our work is often presented in public and open to criticism from everyone. What makes it worse is that usually we only see the finished products of other, more experienced people's work—the beautiful code, the award-winning novel, the revolutionary research paper—without seeing the years of study, practice, and work behind it. We compare ourselves with an illusory ideal of a person who is "naturally" good at their work.

That's the official story of Impostor Syndrome. But it's not the whole story. How often have you heard comments like these?

- "Fake geek girl. I bet she's never even seen Star Wars."

- "Are you here with your boyfriend?"
- "Are there any women in computer science? Not counting use-interface designers, obviously."

For example, Intel developer Connie Berardi [2] reports, "Of the original seven [women in my first CS] class, I was the only one that graduated. Some were told by professors they were 'not good enough', that they should 'quit while they were ahead'. The older engineering buildings at my school had once turned old closets into women's restrooms despite a men's room on every floor."

Often Impostor Syndrome is a completely rational response to being called an impostor over and over. In fields in which women are not supposed to be good (and where sexism is rife), women are more likely to face Impostor Syndrome. The idea that most people, when their skills, authority, and legitimacy are regularly questioned, can answer with a "Not so, I'll show you" is a myth. Rather, when our community tells us over and over that we're imposters, we start to believe it.

The result is that women, in addition to being undermined by others, internalize their criticism and undermine ourselves. We choose easier tasks that we believe are more suited to our skills; we apply for lower-level jobs than our confident peers; we don't speak at conferences; and we don't step up as role models, mentors, and teachers because we feel we have nothing to give to others. Even women who know about Impostor Syndrome frequently spend extra energy fighting with it when sharing their work with others.

How to Overcome Impostor Syndrome

Impostor Syndrome is a major reason women in computer science don't take on leadership roles, leave the field after a few years, or never enter the field in the first place. Bringing people together to help each other overcome Impostor Syndrome works. Doubting ourselves individually (for example, attributing luck to our career successes rather than taking credit for our effort and expertise) becomes more difficult when we're in a room full of people who also struggle with Impostor Syndrome feelings. Believing that we all "just got lucky" doesn't make sense.

Here's what you can do to fight your own Impostor Syndrome. (In the next section, we will describe what communities can do.)

1. Talk about the issue with people you trust: When you hear from others that Impostor Syndrome is a common problem, it becomes harder to believe your feelings of being a fraud are real.
2. Ask your friends what they think of you: Usually, other people have a more realistic (higher) opinion of your work. Your friends can remind you of your major accomplishments you have completely forgotten about. "Accept the fact that others recognize your skills

not to please you but because they are real,” says Flore, Mozilla representative and WoMoz project [3] leader. “Don't blush. Just smile and say ‘Thank you!’”

3. Go to an in-person Impostor Syndrome session at a conference, from your workplace training program, or your school: There's nothing like being in a room full of people you respect and discovering that 90% of them have Impostor Syndrome.
4. Watch your words because they influence how you think: Noopur Raval [4], Program Officer at the Center for Internet & Society, advises, “Prepare responses beforehand. Ask yourself aloud who you are and what you do... If you know some of the typical questions that make you feel like an impostor, make you feel angry, prepare responses to them in your head.” Leslie Birch [5], maker and filmmaker, says, “Are you putting out any disclaimers like, ‘I'm not an expert on this, but’... It's easy to get into a pattern of pretending that you don't know something to seem polite or even apologetic, but in the end, it wastes the reader's time and even takes away from the knowledge you actually possess. Keep your uncertainties out of the writing and respect will follow.”
5. Teach others about your field: You will gain confidence in your own knowledge and skill, and you will help others avoid some Impostor Syndrome shoals.
6. Ask questions: Asking questions can be intimidating if you think you should know the answer, but getting answers eliminates the extended agony of uncertainty and fear of failure. “Asking questions and talking about mistakes sends the message to other people that it's OK for them to be imperfect too,” reports Britta Gustafson [6], community manager for Cydia.
7. Build alliances: Reassure and build up your friends, who will reassure and build you up in return. (And if they don't, find new friends.)
8. Own your accomplishments: Keep actively recording and reviewing what you have done, what you have built, and what successes you've had. “You can look back at [your accomplishments] later to help convince yourself that yes, you are making an impact just as much as anyone else,” says Amber Yust [7], Site Reliability Engineer, Google.
9. Re-orient ourselves around your values and worth: When called upon to step up and show your work, reflect on our core values and how your work reflects them.

How to Help Others Overcome Imposter Syndrome

The flip side of coaching women on how to overcome Impostor Syndrome is building institutions that don't create Impostor Syndrome in the first place. Expecting to achieve gender equality entirely by asking women to change to fit the world isn't fair, nor is it likely to succeed. Our communities must be designed to prevent huge gaps between the actual skill required to participate or lead, and the apparent skill required.

Impostor syndrome thrives in communities with arbitrary, unnecessary standards, where harsh criticism is the norm, and where secrecy surrounds the actual process of getting work done. Here are some of the changes you can make in your community to make it harder for impostor syndrome to flourish:

1. Simply encourage people: “My friends and colleagues have offered me a lot of encouragement. Having male friends in the tech world say ‘you should go to this’ or ‘you should do this’ has been very encouraging,” says Georgia Guthrie [7], a Philadelphia-based designer and maker.
2. Discourage hostility and bickering: When people in your institution regularly have public, hostile, personal arguments, that's a natural breeding ground for Impostor Syndrome, and it discourages people who already have Impostor Syndrome.
3. Eliminate hidden barriers to participation: Be explicit about welcoming new students and colleagues, and thoroughly document how someone can participate in projects and events in your research group and at your institution.
4. As a leader, show your own uncertainties and demonstrate your own learning process: When people see leaders whom they respect struggling or admitting they didn't already know everything when they started, having realistic opinions of their own work becomes easier.
5. Reward and encourage people in your team and department for mentoring newcomers: Officially enshrine mentoring as an important criterion in your career advancement process.
6. Don't make it personal when someone's work isn't up to snuff: When enforcing necessary quality standards, don't make the issue about the person. They aren't wrong or stupid or a waste of space; they've simply done one piece of work that didn't meet your expectations.

Impostor Syndrome hurts women and hurts the industries that keep them out. But knowledge is power. Now you know the enemy, and you are on your way to victory.

References

1. The Ada Initiative Impostor Syndrome training: <http://adainitiative.org/what-we-do/impostor-syndrome-training/>
2. Connie Berardi: <https://twitter.com/hackermnemoth>
3. Women & Mozilla (WoMoz): <http://www.womoz.org/>
4. Noopur Raval: <http://www.linkedin.com/pub/noopur-raval/15/4a8/7a>

5. Leslie Birch: <https://twitter.com/zengirl2>
6. Britta Gustafson: <http://jeweledplatypus.org/>
7. Amber Yust: <http://www.linkedin.com/in/amberyust>
8. Georgia Guthrie: <http://www.georgiaguthrie.com/>

Additional resources

Denise Paolucci: “Overcoming Impostor Syndrome” talk
<https://www.youtube.com/watch?v=zZg9rax-ky4>

Julie Pagano: “It's Dangerous to Go Alone”
<http://juliepagano.com/blog/2013/11/02/it-s-dangerous-to-go-alone-battling-the-invisible-monsters-in-tech/>

Mood Gym: <https://moodgym.anu.edu.au/welcome>

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Exercise 1:

When you think of the times in your life where you've been the happiest, the proudest, or the most satisfied, which of the following values come to mind?

- Accomplishment
- Accountability
- Achievement
- Action
- Activism
- Adventure
- Affection
- Ambition
- Autonomy
- Challenge
- Close relationships
- Commitment
- Community
- Compassion
- Competence
- Competition
- Confidence
- Conformity
- Control
- Coolness under fire
- Cooperation
- Courage
- Creativity
- Credibility
- Decisiveness
- Desires
- Economic security
- Effectiveness
- Efficiency
- Enthusiasm
- Environmentalism
- Excellence
- Excitement
- Fairness
- Faith
- Fame
- Family
- Foresight

- Free time
- Freedom
- Friendships
- Growth
- Happiness
- Health
- Helping other people
- Helping society
- Honesty
- Hospitality
- Independence
- Influence
- Inner harmony
- Insight
- Inspiration
- Integrity
- Intellectual status
- Introspection
- Justice
- Knowledge
- Leadership
- Location
- Loyalty
- Meaningful work
- Mentorship
- Merit
- Money
- Movement
- Music
- Nature
- Openness
- Order
- Patriotism
- Peace
- Persistence
- Personal development
- Physical challenge
- Pleasure
- Power and authority
- Privacy
- Public service
- Purity
- Quality

- Recognition
- Reputation
- Responsibility
- Romance
- Security
- Self-knowledge
- Self-reliance
- Self-respect
- Serenity
- Sophistication
- Spirituality
- Stability
- Status
- Tenacity
- Tranquility
- Truth
- Vibrancy
- Volunteering
- Wealth
- Will-power
- Wisdom [add any that I missed]

Exercise 2:

Pick one and write a couple of sentences about why one of the values you chose is important to you.

Exercise 3:

In general, I try to live up to these values: Disagree 1 ----- 2 ----- 3 ----- 4 ----- 5 Agree

Exercise 4:

What was the last topic that someone asked for your advice on?

Impostor Syndrome Workshop : Thought Record

Where were you?	Emotion or feeling	Negative automatic thought	Evidence that supports that thought	Evidence that does not support that thought	Alternative thought	Emotion or feeling
<p>Where were you ? What were you doing ? Who were you with?</p>	<p>Emotions can be described with one word, eg, sad, angry, scared. Rate 0-100%</p>	<p>What thoughts were going through your mind? What memories or insights were in your mind.</p>	<p>What facts support the truthfulness of this thought or image?</p>	<p>What facts or experiences indicate that this thought might not be true? If my best friend had this thought, what would I tell them ? Could I be jumping to conclusions?</p>	<p>Write a new thought that takes into account evidence for/against the original thought.</p>	<p>How do you feel about the situation now ? Rate 0-100%.</p>