



# Universal Design for Tech: Improving Gender Diversity in our Industry

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# Elizabeth K. Joseph

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- Leadership team of the Ubuntu Women project, co-founder of PhillyChix
- Member of the Ubuntu Community Council and co-author of The Official Ubuntu Book, 8<sup>th</sup> ed.
- Director at Partimus.org



This is a tough talk to give

# I was kind of a nerd



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OK, I still am



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Lousy stuff has happened to me:

<http://tinyurl.com/ekj-incidents>

# Some good news

- Most overt professional sexism is dead
- I've always had supportive colleagues and peers
- I love my work, and know many other women who do too



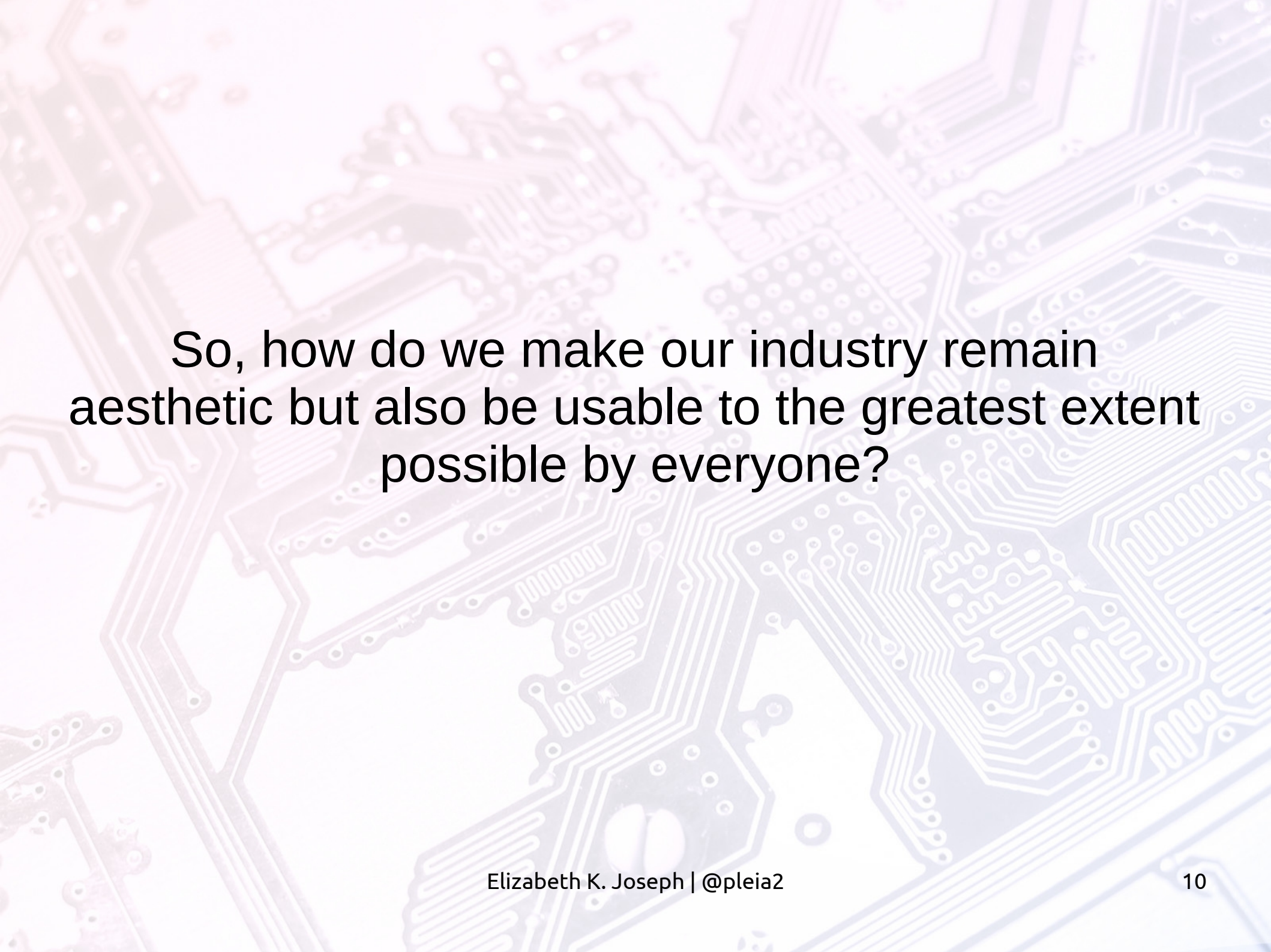
But look around, let's change this



# Universal Design

The term "universal design" was coined by the architect Ronald L. Mace to describe the concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life.

Source: Wikipedia article on Universal Design:  
[http://en.wikipedia.org/wiki/Universal\\_design](http://en.wikipedia.org/wiki/Universal_design)



So, how do we make our industry remain  
aesthetic but also be usable to the greatest extent  
possible by everyone?

# Fix the Pipeline Problem

Not enough women are joining the tech industry

# Fix the Pipeline Problem

Truth is, not enough *people* in our country are joining the tech industry

# Addressing the pipeline problem early

Companies can play a role in funding programs that support programs for girls, for example:

- Girl Scouts: <http://www.girlscouts.org/imagineengineering/>
- Black Girls Code: <http://www.blackgirlscode.com/>
- Girls Inc: <http://www.girlsinc.org/resources/programs/girls-inc-operation-smart.html>

There are also many general outreach programs for students, <http://code.org/> and others

# Develop formal education

- Most women I work with are formally educated
- Trade schools and some universities are starting to catch up with special programs for operations and systems administration
- Want to help or learn more? Check out:  
<https://groups.google.com/forum/#!forum/ops-education>

# Hire Junior Systems Administrators

- Most women I've worked with got their start as a junior sysadmin (and so did I!) but these jobs are few and far between
- Due to many factors (fewer effective networking opportunities, financial or social situation), diversity candidates often struggle to get initial, junior-level experience

# Pipeline aside

“We collected the resumes of more than 300 candidates, both for our full-time positions and our internship program. At least fifty of them were exceptional.

...

Talented technical women most certainly do exist, and in volume.”

*Jamie Talbot, Medium.com, upon returning from Grace Hopper Celebration of Women in Computing*



# Support other mechanisms for motivation

- Popular motivators in the industry include:  
Money, power, recognition

# Support other mechanisms for motivation

- Things that motivate me: Supporting others, interesting problems to solve, doing good, opportunity to work creativity

# Seek women out

- Post to women in tech job lists
- Find and invite female speakers to your events
  - New site: <https://speakerinnen.org/en>
  - Ask colleagues if they know female speakers
  - *(LOPSA-East did a great job with this, thank you!)*

# Offer flexible schedules for everyone

- Alerts might go off at 2AM, we have 11PM maintenance windows.
- Surely that means flex time makes *more* sense for us!
- Encourage male employees to take advantage of this too, preferably first

# Mentoring

- My first sysadmin job:
  - Were sensitive to diversity issues
  - Mentored me
  - Encouraged my participation in diversity groups
- I'd love to mentor more women, but I am overwhelmed with requests, I need your help
- Mentoring someone of another gender can be awkward, but some tips...

# Mentoring tips

- Don't patronize
- Have high expectations
- Make meetings routine
- Have meetings in public
- Participate in a formal program

# Sponsor programs supporting women

- Local groups/organizations (search for them)
- Geek Girl Dinners: <http://girlgeekdinners.com/>
- Conferences
  - USENIX WiAC: <https://www.usenix.org/conference/wiac14/sponsorship>
  - Grace Hopper Celebration of Women in Computing: <http://gracehopper.org/become-a-sponsor/>
- Ada Initiative: <http://adainitiative.org/>



# But if you can do nothing else...

Strive to avoid assumptions based on age,  
race, gender, class, etc



# Thank you

- Questions?
- Follow up? Email me! [lyz@princessleia.com](mailto:lyz@princessleia.com) or find me on twitter @pleia2
- Slides online at:  
<http://princessleia.com/presentations/LOPSA-East-2014-Keynote-ekjoseph.pdf>