



Creative Coding: why you should care

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Who are we?

Let's start with the basics

Hello!

I am Karen Fletcher

I am here because I love to give presentations. (No, really!)

You can find me at @knpfletcher on twitter





How did I get here?

- Former barista
- Anthropologist with an Archaeological bent
- Art Historian with a distaste of Modern Art
- Attended Arkansas Coding Academy in 2016



Hello!

I am Chandler Gaines

I am here because I love making Power Points (Kinda true.)

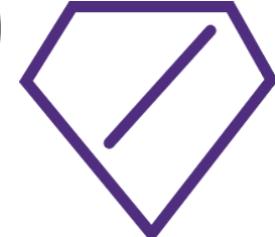
You can find me at @chanandiler on instagram





How did I get here?

- Former event planner
- Sociology major with Gender Studies minor
- Jack of all trades, master of none
- Attended Arkansas Coding Academy





When we were in high school...

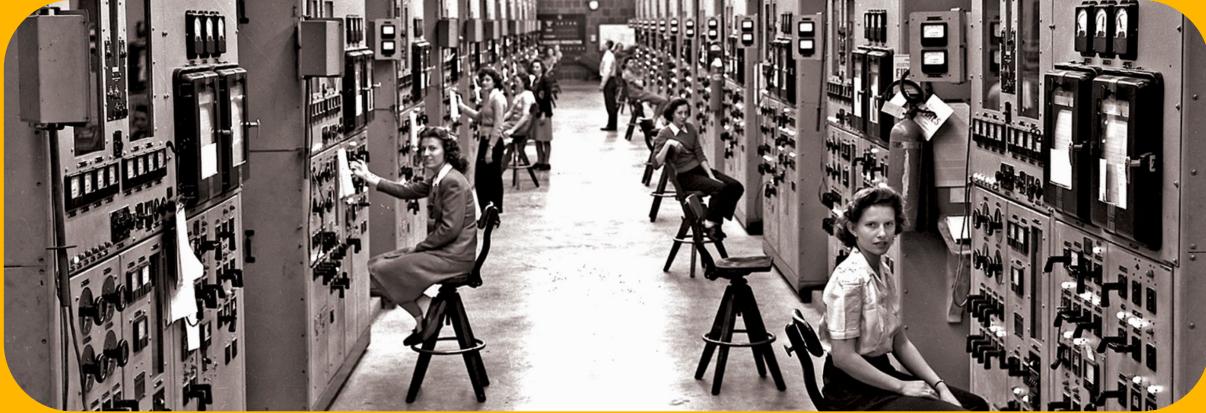
Karen:

- Conway High School
- Never took a computer class beyond typing

Chandler:

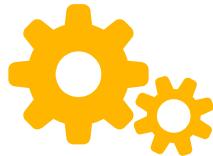
- Oden High School (Class size: 10)
- The school had minimal funding
- Keyboarding was the only computer class

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Awesome women in **STEM:**

Pioneers, legends, and why it matters



Ada Lovelace

1815 - 1852

- Studied Math and Science
- Analytical Engine
- 1842 - 1843: First computer programmer
 - Wrote an algorithm to translate an article about the Engine written in French by an Italian engineer
 - Others were focused purely on calculations

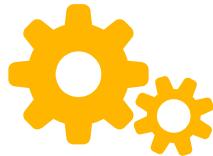




Grace Hopper

1906 - 1992

- Rear Admiral in US Navy
- 1944 - wanted to make a programming language using English words
 - "computers didn't understand English"
- Machine Independent programming languages -> COBOL
- 1970s - wanted any user to be able to access common databases located on the network

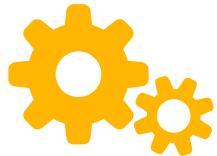


Evelyn Boyd Granville

1924 - present

- One of the 1st black women to earn a PhD
- Developed computer programs that were used in the Mercury Project and the Apollo Mission





Margaret Hamilton

1936 - present

- Created the building blocks of software engineering (a term she coined)
- Developed on-board flight software for Apollo 11 mission to land on the Moon

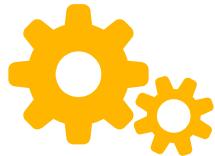


Annie Easley

1933 - 2011

- 1958 - Worked at NACA as a "human computer"
- Worked for NASA on software for the high-energy / Centaur booster rocket
 - Used on Viking, Voyager, and Cassini
 - Variations still used today
- Developed and implemented code for battery used in first hybrid cars





Radia Perlman

1951 - present

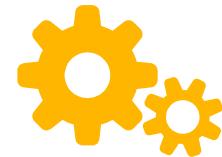
- 1984 - invented the protocols for routing network traffic
 - Basically invented the internet

Lynn Conway

1938 - present

- Pioneer of microelectronics chip design
- Much of modern silicon chip design revolution is based on her work
- Worked for IBM and Xerox
- Invented a method for issuing multiple out-of-order instructions
 - Largely uncredited





Karen Sprack Jones

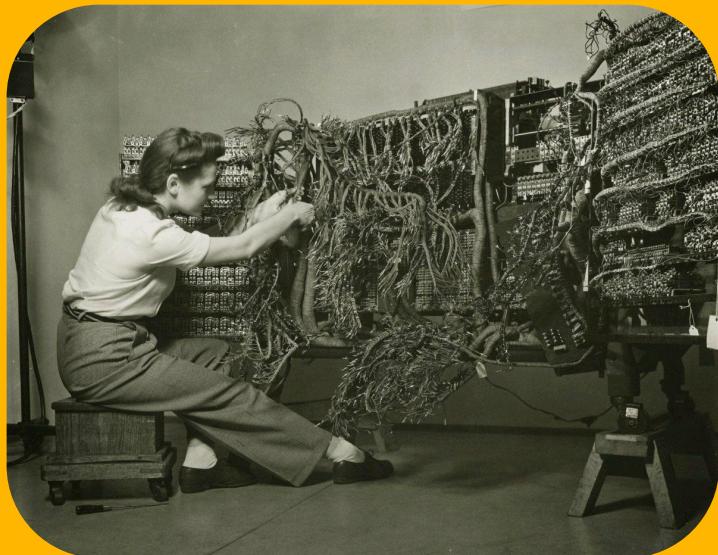
- Mother of Search Engines
 - <https://www.nytimes.com/2019/01/02/obituaries/karen-sparck-jones-overlooked.html?smid=fb-nytimes&smtyp=cur>
- "Computing is too important to be left to men."



So what gives?

- Historically female
- Becomes male dominated in late 1980s

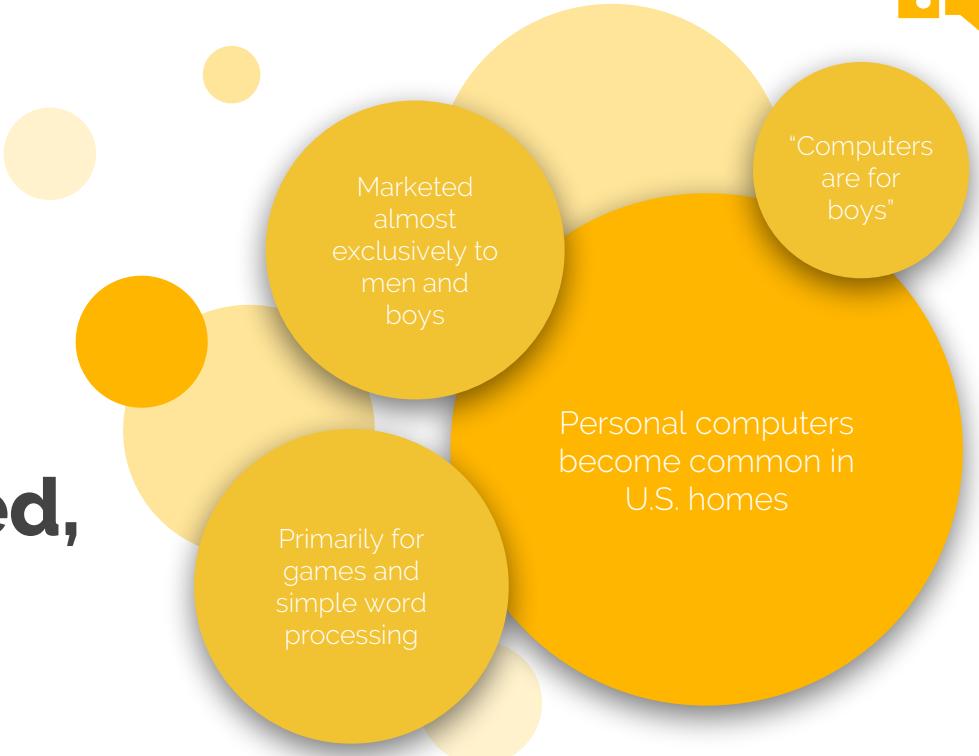
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The Situation

How it happened and where to go from here

**In 1984
the percentage
of women in
computer
science flattened,
then plunged**



Marketed almost exclusively to men and boys

Primarily for games and simple word processing

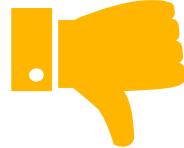
Personal computers become common in U.S. homes

"Computers are for boys"



“Computers are for boys”

Movies in the 80s like *War Games* and *Weird Science, Revenge of the Nerds* almost all feature the awkward geek boy genius who uses tech savvy to triumph over adversity and win the girl.



So what now?



It's your turn*



You know, if you want to.

- [CodeCombat](#)
- SpriteBox



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The Finale

You're almost free from our presentation!

A classic "Rosie the Riveter" illustration of a woman with short dark hair wearing a red bandana with white polka dots, a blue denim jacket over a white shirt, and a blue belt. She is flexing her right bicep. The background is a dark blue with a grid pattern.

Support each other!

- Girl Develop It
- Girls/Women Who Code
- Black Girls Code

Embrace mistakes!

Make rad things!

Learn a lot!

Work hard!

Have fun!

- Hour of Code modules
- SoloLearn apps
- Code Academy
- Free Code Camp
- MIT OpenCourseware
- CodeNewbie community
- Base CS podcast



**FREE
Resources**

Thanks!

Any questions? Feel free to
reach out to us!

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