February 27, 2016

GIRLsmarts4tech
Parent Workshop
Agenda

• Women in IT
• Your Role as a Parent
• Panel Discussion
Women in IT

57% of professional occupations in the US workforce held by women

26% of professional computing occupations in the US workforce held by women

6% of corporate Chief Information Officer (CIO) positions held by women

Sources: National Center for Women & Information Technology
Pipeline of Computer Science Graduates
(less today than 10 years ago)

Source: National Science Foundation, National Center for Education Statistics
What can you do as a parent?

Encouragement

Exposure

Sources: Women Who Choose CS – What Really Matters
Encouragement
Social Encouragement

• Social encouragement includes **positive reinforcement** from family and peers
• Opportunities to practice puzzles and problem solving in a **supportive environment** can help build confidence and interest

**What matters most is encouragement!**

– Regardless of your technical expertise

Sources: Women Who Choose CS – What Really Matters
Exposure
Academic & Career Exposure

• Experience with Computer Science in middle and high schools can motivate young women to pursue computing
  – Parents, encourage your daughters to keep taking Math and Sciences in high school!
  – BC to add CS to future curriculum

• Girls exposed to a wide variety of role-models and mentors help with Recruitment and Retention

Sources: Women Who Choose CS – What Really Matters
Panel Discussion to Explore Careers in Tech

• **Nicole Arksey**
  – Team Lead for Platform Design, *iQmetrix*

• **Dianne Lapierre**
  – Senior Vice President and Chief Information Officer, *Raymond James Ltd*

• **Gail Murphy**
  – Professor and Associate Dean, *University of British Columbia*
  – Co-founder and Chief Scientist, *Tasktop Technologies*

• **Burak Yoldemir**
  – Big Data Developer, *SAP*
Additional Opportunities

- Technovation
- Made w/ Code
- TechTrek
- Ladies Learning Code
Our Team of Volunteers

• Ghislaine Chan – Director, Development
• Michael Ham – Manager, Development
• Étienne Hossack – Systems Developer
• Faizal Karim – Systems Developer Analyst
• Simone Liu – Systems Developer
APPENDIX
The value of a computer science education

- $0.58M lifetime earnings of a high school graduate*
- $1.19M lifetime earnings of a college graduate*
- $1.67M lifetime earnings of a computer science major*

*Net present value today

40% more than the college average

Source: Brookings

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Canadian Perspective

• Information Systems Analysts and Consultants
  – Median hourly earnings: $35.87 = ~$75,000 annually

• Computer Programmers
  – Median hourly earnings: $33.93 = ~$70,500 annually

• Software Engineers and Designers
  – Median hourly earnings: $41.21 = ~$86,000 annually

Source: CareerBuilder.ca
Tech’s Gender Diversity

GENDER: TECH

- **Twitter**: 90% — 10%
- **Facebook**: 85% — 15%
- **Yahoo**: 65% — 15% *
- **LinkedIn**: 83% — 17%
- **Google**: 83% — 17%
- **Apple**: 80% — 20%
- **Pinterest**: 79% — 21%
- **eBay**: 76% — 24%


Source: Gigaom
Social Encouragement

• Social encouragement includes positive reinforcement from family and peers
• Parental occupation is statistically insignificant in deciding to pursue Computer Science

• What matters most is encouragement!
  – Regardless of their technical expertise

Sources: Women Who Choose CS – What Really Matters
Self Perception

• A positive *self-perception* translates to ongoing confidence in your daughter’s abilities

• In fact, a girl’s *interest* in, and *perceptions* of, her own proficiency in Math and problem solving significantly influences her decision to purse a Computer Science degree!

Sources: [Women Who Choose CS – What Really Matters](#)
Self Perception

• As parents, providing your daughters with the opportunity to practice puzzles and problem solving in a **supportive environment** can help build confidence and interest

• This interest has been shown to translate to **successful** careers

Sources: [Women Who Choose CS – What Really Matters](#)
Academic Exposure

• Experience with Computer Science in middle and high schools can motivate young women to pursue computing

• BC to add CS to future curriculum
  – As parents, you have a voice!

Sources: Women Who Choose CS – What Really Matters
Career Perception

• Visibility of female role models in Computer Science

• Telling stories about positive social impact through careers in computing can enable young women to visualize themselves in the field

• Girls exposed to a wide variety of role-models and mentors help with Recruitment and Retention

Sources: Women Who Choose CS – What Really Matters
Technology Trends and Careers

... It’s not just programming!

• **AI / Robotics** – automation, smart devices (ex. self-driving cars)

• **Big Data / Analytics** – rate of information creation increasing exponentially; how to extract valuable insights from it?

• **Cloud** – applications and data moving away from local, restricted setups to accessible, scalable architectures

• **Internet of Things (IoT)** – interconnected devices and systems

• **Security** – increasingly important as more applications and systems become interconnected, automated

• **UI / UX** – new technologies lead to new interfaces; how to design and shape user experiences with these interfaces?
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