



# **The Freedom To Fail: Girls, Curiosity and Technology**



# **The BlackBerry Encounter**



## **It's 2005, but ...**

- **Carly Fiorina**
  - **Fortune 500 companies headed by women from 8 to 7**
- **Lawrence Summers**
  - **'Innate gender differences' are responsible for lack of women at senior levels in science and math**



## The Numbers

- **In third and fourth grade, boys and girls like math equally.**
- **Between fourth and 12th grade, percentage of girls interested in science declines: 66 percent to 48 percent**
- **Percentage of girls who don't want to study math increases from 9 percent to 50 percent**
- **9 percent of engineers and 27 percent of computer science programmers are women**
- **Numbers are in decline over the past 15 years**
  - » **Stanford University Study**



- **At Carnegie Mellon University, aggressive outreach brought the numbers of freshmen women interested in science from 7 percent in 1995 to 40 percent in 2000.**

## **Innate Differences?**

- **The impact of 'nurture'**
  - **Japanese students and creativity**

## **'Innate' Skills**

- **Boys – 'mechanical stuff'**
- **Girls – 'communication'**

## **Take a Step Back ...**

- **How do we raise boys and girls?**
- **What do we tell them is important?**
- **What do we base that on?**
- **What signals are we sending?**



## Origins

- **What lessons can be learned from a late in life technophile?**



## **From technophobe to technophile to 'technologist'**

- **1996 – zero knowledge**
- **2005 – acronym soup**
- **The 'click'**
- **A life in technology**



# Why Did I Get Into Tech?



## **Why do people love technology?**

- **The next**
- **The new**
- **The unformed**
- **The potential**



# **Why Girls Don't 'Get' Technology - The Big Picture**

## **The Issues**

- **Security vs Adventure**
- **The Real vs The Possible ... or impossible**
- **Safety vs Risk-taking**
- **Fear vs Confidence**
- **Fear vs Curiosity**
- **Failure vs Success**
- **Conformity vs Individualism**

## **Adventure**

- **Challenge and competency**
- **Confidence and capability**
- **Baby bird and nest**
- **Next challenge ...**



## **Speculative Fiction (and fiction in general)**

- **Human relationships**
- **Possibilities**
- **Impossibilities**

# Away from Fear and Toward Confidence

- **Impostor Syndrome**
  - **Stanford study**
  - **The number of women who doubted their ability to perform tasks were twice the percentage of men (30% to 15%).**
  - **“Half the percentage of women than men stated that they felt confident speaking up in class (30% to 57%) while 33% of the women (versus only 9% of the men) feared that speaking up would reveal their inadequacies.”**



# Developing Curiosity

- **What's out there?**
- **Under the hood**

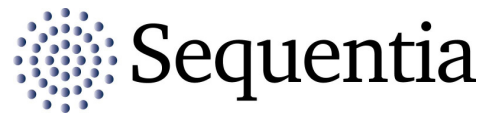


## **It's OK to Fail**

- **Technology is the industry of failure evolving into success**
- **Newsweek cover story:  
"Sometimes kids have to fail in order to learn"**

# Unconformity is Normal

- **Japan**
- **It's OK to be 'different'- normative**
  - **Celebrate differences**
- **Encouraging diversity and variety**

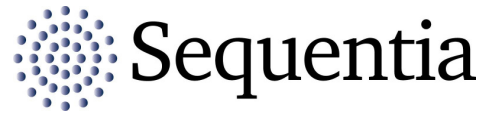


# Helping Girls Get Technology



## **Role Models**

- **Roomba**
- **Kazaa**
- **Mothers**



## **Start with comfortable places**

- **Communication**
  - **Instant messenger**
  - **Websites and pages**
  - **Wikis ("cool!")**



## **Build into strengths**

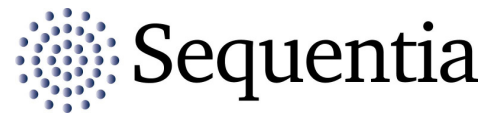
- **Technology is everywhere**
- **Design, writing, communication, fashion**
  - **Canadian Literature**

## Context

- **Cell phones and instant messaging**
- **How do these things work?**
- **How do they translate into a career?**
- **What are the applications for me?**



# The Challenge



# Q&A



**Thank you!**

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