Connected Teaching and Learning
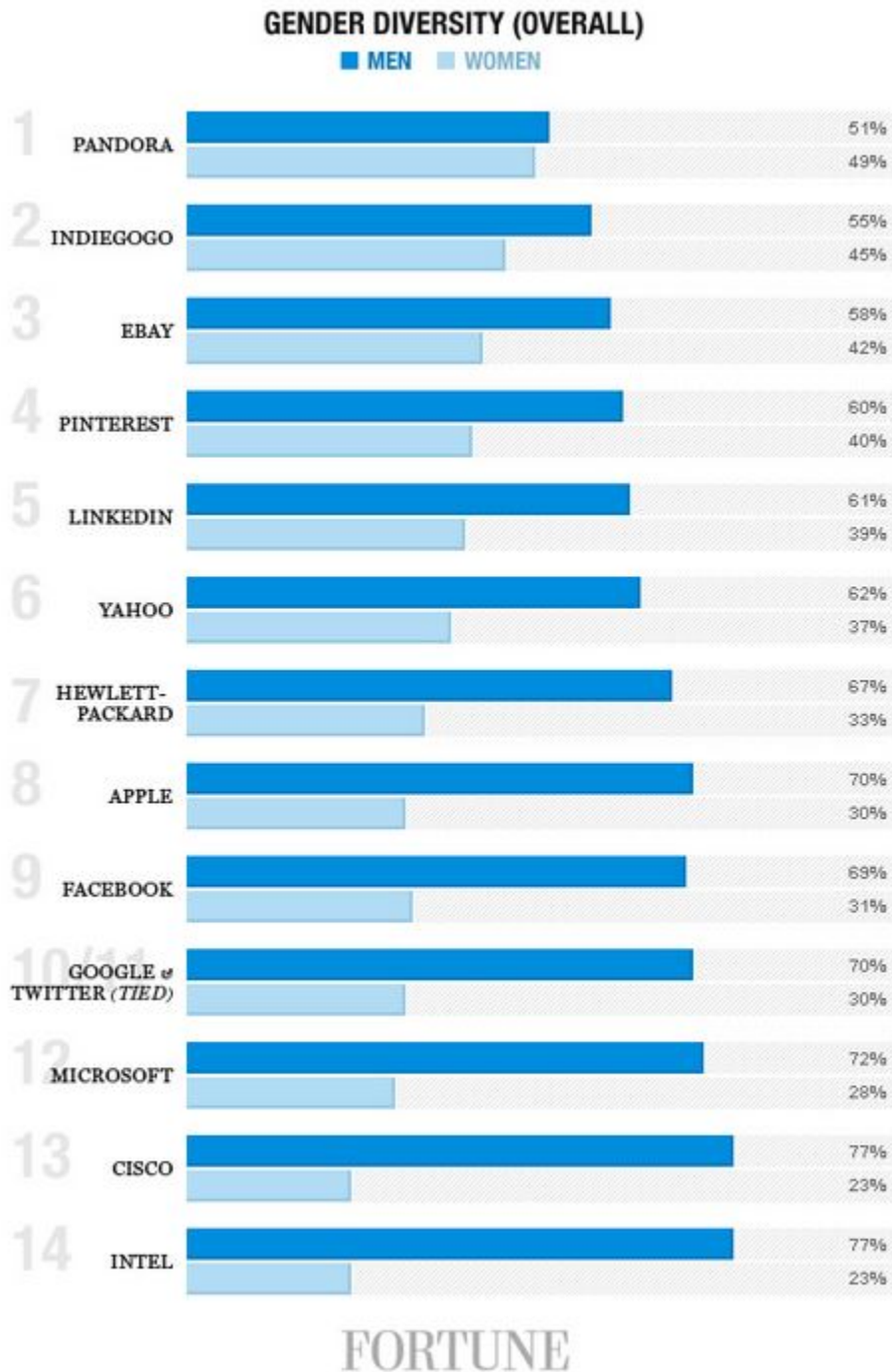
How to boost gender diversity in STEM

By Abby Perkins on December 19th, 2014

*Abby Perkins writes about jobs, workplace culture, **business solutions** and more at Talent Tribune, a **Software Providers** blog.*

Diversity has long been an issue in technology. Less than **30% of tech jobs** are held by women, and that number is even smaller for leadership positions.

GENDER DIVERSITY (OVERALL)

■ MEN ■ WOMEN

Rank	Company	Men	Women
1	PANDORA	51%	49%
2	INDIEGOGO	55%	45%
3	EBAY	58%	42%
4	PINTEREST	60%	40%
5	LINKEDIN	61%	39%
6	YAHOO	62%	37%
7	HEWLETT-PACKARD	67%	33%
8	APPLE	70%	30%
9	FACEBOOK	69%	31%
10/11	GOOGLE & TWITTER (TIED)	70%	30%
12	MICROSOFT	72%	28%
13	CISCO	77%	23%
14	INTEL	77%	23%

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Gender diversity: How top tech companies compare

Many tech companies are working hard to improve the industry's gender gap, **releasing diversity numbers** to the public and **launching hiring initiatives** geared specifically toward women. But for real change to happen, it needs to start earlier – specifically, in

STEM education.
Current trends suggest that more women are studying STEM now than ever before – in fact, in 2010, women represented **50.3%** of all science and engineering bachelor's degrees. But there's still a long way to go when it comes to getting – and keeping – women interested in tech. Below, we'll look forward at what's being done – and what can be done better – to improve gender diversity and help get women and girls started in technology.

Women in technology
There are a number of possible explanations for why technology remains so male-dominated. Among them? A culture that **is far friendlier to men** than it is to women and a **glass ceiling** that's worse than in almost any other industry. One of the biggest factors, though, is a lack of female interest in the industry.
According to a recent study by Penn, Schoen and Berland, nearly **two-thirds of teens** have never considered a career in engineering. Another study by the Girl Scouts of America revealed that only 13% of female teens say that a career in STEM would be their first choice. The reason? They're not as interested by technology as their male counterparts, and they don't see the benefits of getting involved.

Making technology more accessible – and more interesting
Historical efforts to get women and girls more involved with technology have been focused on making it *easier*. But going forward, improving gender diversity in technology won't only be about making STEM more accessible for girls and women. It will need to be about making it more *interesting*, too.
In 2015 and beyond, what needs to be done to improve gender diversity in STEM education and technology?

Promoting an early interest in STEM
Experts agree that one of the most important factors to getting girls interested in STEM is doing it at a young age. From the toys and
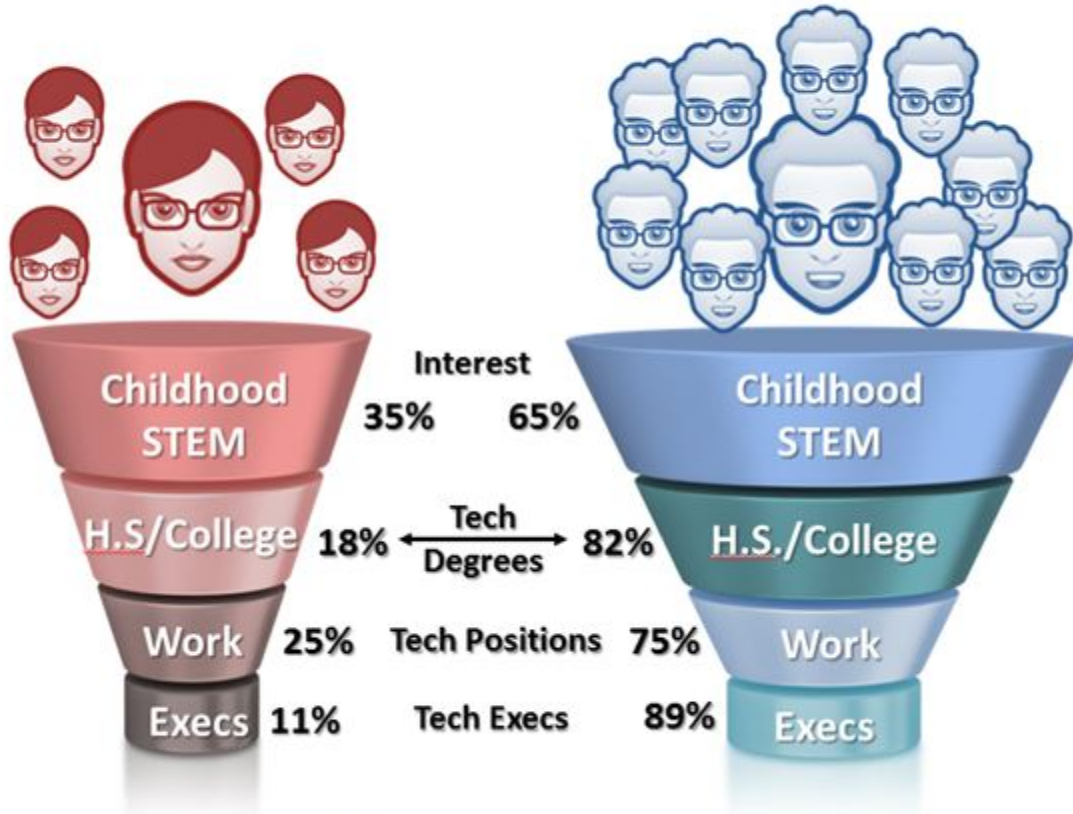
games they play with to the guidance they receive in grade school, early actions and choices have a surprising effect on girls' educational and career paths later in life. The key according to leading women in tech? Introducing girls to technology early and maintaining that interest throughout childhood and adolescence. Parents and educators need to teach girls about women in technology, help them develop related skills and, most importantly, help them believe they can succeed in the field.

Bridging the gap between lower and higher education
In grades K-12, girls take high-level math and science courses at **similar rates** as their male peers – and they perform well in them. However, those numbers drop off dramatically at the undergraduate level – particularly in the fields of math, computer science and engineering. Colleges and universities are going to have to work hard to get and retain more women in STEM classes. One way Harvey Mudd is trying to improve its numbers? Offering **more introductory computer science courses** and hosting events and conferences for women in tech. And it's worked – 40% of Harvey Mudd's computer science majors are women, far more than at any other co-ed school.

BY THE NUMBERS:
FEMALE vs. MALE TECH CAREER FUNNEL

	Female	Male	
Childhood STEM — Interest	35%	65%	Childhood STEM
H.S/College — Tech Degrees	18%	82%	H.S./College
Work — Tech Positions	25%	75%	Work
Execs — Tech Execs	11%	89%	Execs

Sources: IT Manager Daily and Girl Scouts of America
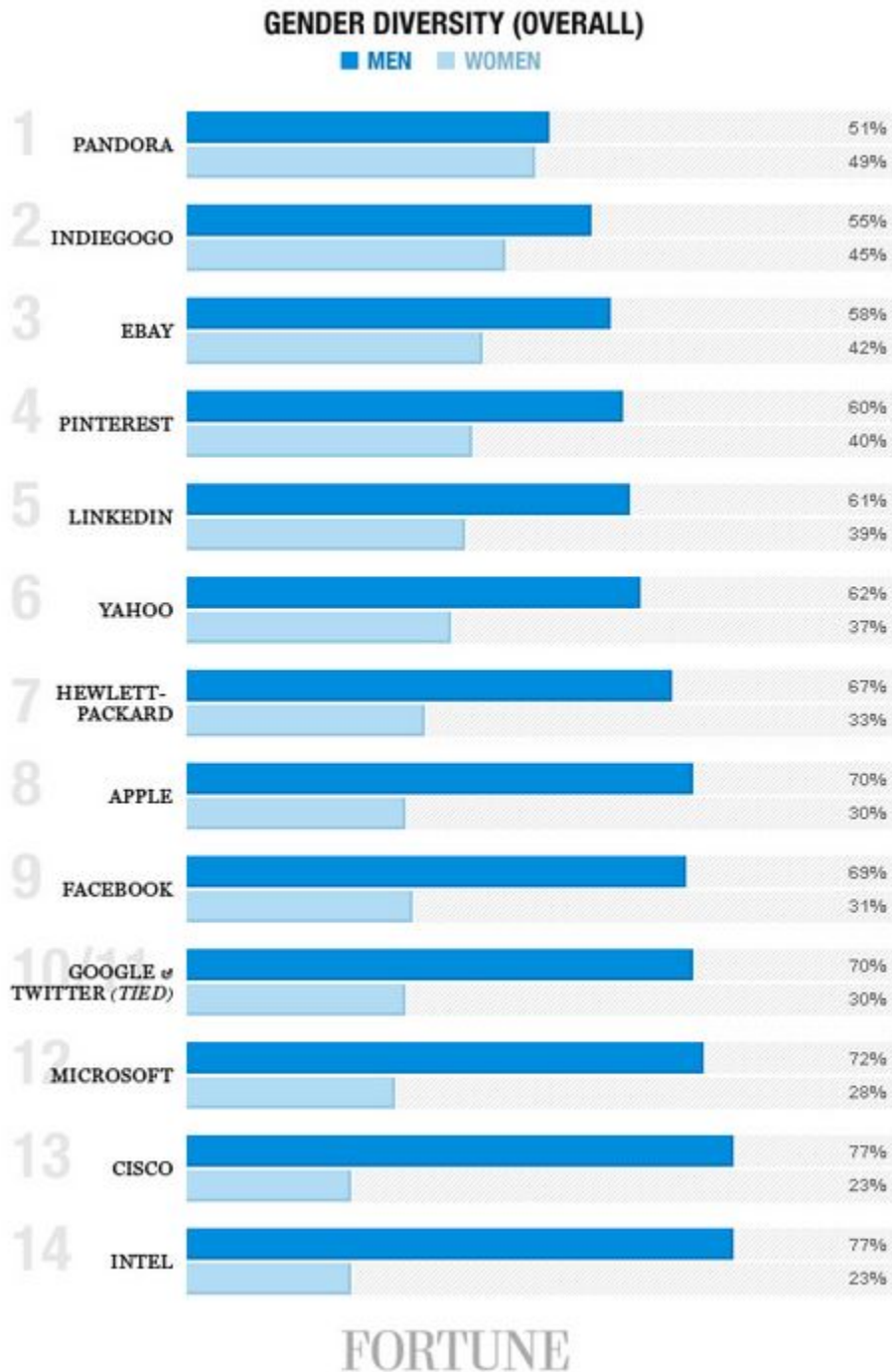
A decreasing interest in STEM

Advertising the benefits of careers in STEM
Nine out of 10 of the most wanted jobs are in a STEM field, including computer science, electrical and mechanical engineering, economics and finance. STEM jobs are predicted to grow by **more than 17%** by 2018, 7.2% more than non-STEM fields. STEM employees earn a median salary of $76,000 – **more than double** that of non-stem workers. And STEM offers some of the **highest entry-level salaries** of any field. Sounds good, right? It should – and girls and women need to know that. High schools, colleges and universities need to start doing a better job of marketing the benefits of a career in STEM – particularly to their

female students.

Continuing to provide organizational resources In 2015 and beyond, we'll need to continue to provide organizational resources for girls and women who want to get involved in STEM. **WITI**, or Women in Technology International, provides women with valuable resources like job boards, educational articles and skill-building tools, while The **National Center for Women and Technology** promotes the participation of women in tech. The White House initiative **Educate to Innovate** seeks to improve diversity in STEM, starting with schools. A growing number of such organizations will provide girls and women who are interested in STEM with the network of support they need to succeed in the field.

Though diversity in technology is improving, we still have a long way to go – and these steps will help. Where do you see gender diversity going in 2015?

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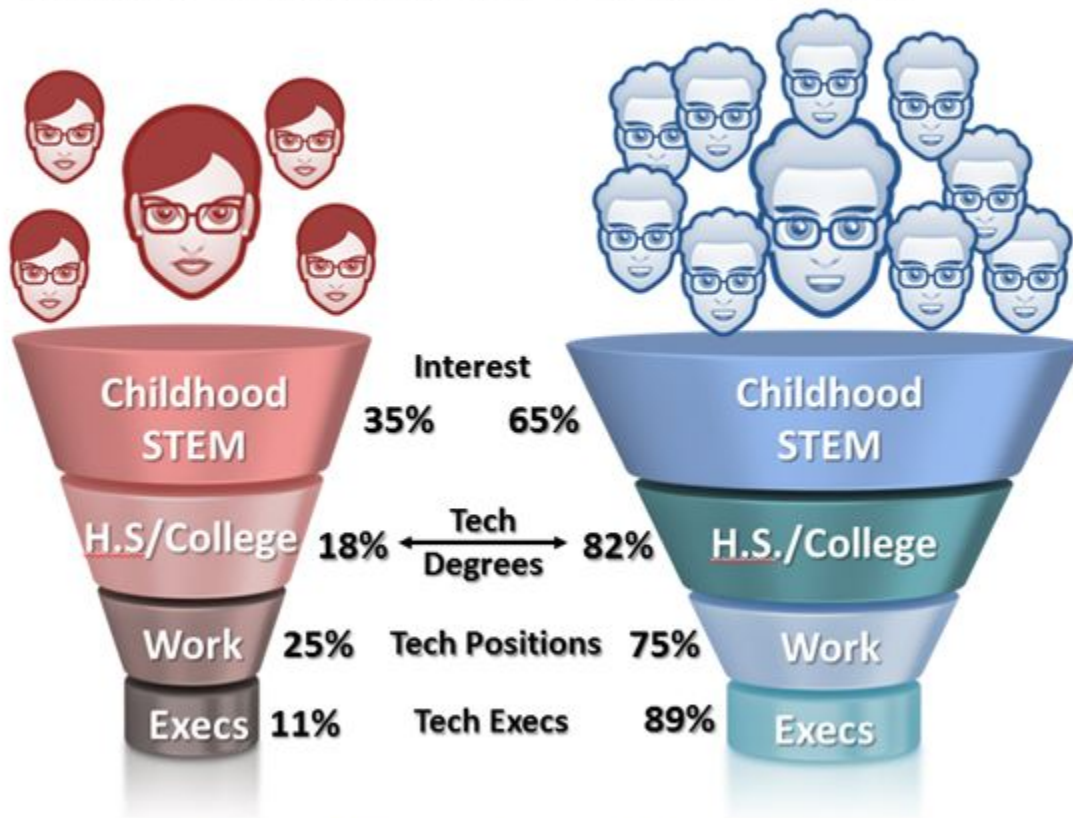
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