

# Breaking Glass Ceilings and Walls

## Encouraging Diverse Thought Leaders

Patrick Meaney  
Senior Technical Staff Member, IBM



**HVTECHFESTIVAL**  
Technology Driven Economic Development



## What are glass Ceilings?



## What are glass Walls?

And why should we even care???



HVTECHFEST

2019

# Breaking Glass Ceilings and Walls

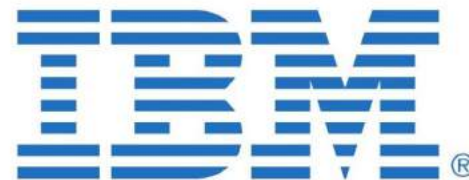
## Encouraging Diverse Thought Leaders

- Glass Walls
  - Silos, Trees, and Brambles
- Glass Ceilings
  - Unconscious Bias
  - Gender, Race, Neurodiversity, Sexual Orientation, Identity, etc.
- Break-out Time
- Conclusions



# Who I am?

- Patrick Meaney
- Married, 32 years
- Father, 3 daughters
- Part-time Preacher
- Youth Director
- Traveling, hiking, volleyball...
- Computer Engineer, 33 years



# My Experience with Conformity – as a student

- Enthusiastic student
- Wanted to please teachers
- Raised hand a lot
- Was often chosen by teachers to answer questions
- I have no idea how this experience affected the learning of anyone else in the class

In other words... I Had No Clue!

I was just a student who was trying to conform to the norm.



# My Experience with Conformity – as a parent

Daughter: Nikki. (Asperger's Syndrome)

- Elementary School  
3 Stories...
  - Backpack in the hallway
  - 100 addition problems
  - Head against the wall



Adding with Some Regrouping (A)  
Find each sum.

9	9	8	5	1	7	1	7	9	9
+9	+2	+1	+4	+7	+2	+2	+9	+7	+5
4	2	6	2	8	3	3	1	9	9
+1	+9	+6	+3	+3	+9	+6	+9	+4	+5
3	9	9	4	1	2	4	6	4	4
+8	+6	+6	+7	+8	+7	+6	+9	+3	+3
1	6	6	2	9	4	4	9	4	2
+6	+4	+3	+7	+8	+6	+8	+5	+7	+6
2	4	4	8	1	8	8	4	9	3
+7	+4	+1	+2	+2	+9	+4	+5	+7	+1
7	9	2	3	5	4	9	7	8	5
+6	+3	+3	+8	+4	+7	+2	+4	+4	+8
4	3	8	9	6	4	5	1	8	7
+4	+1	+4	+7	+8	+5	+1	+1	+7	+3
9	3	2	5	7	3	1	6	5	3
+8	+5	+9	+9	+6	+4	+1	+5	+6	+3
9	9	5	7	3	6	2	8	3	7
+6	+9	+4	+2	+1	+5	+5	+8	+2	+8
2	4	4	5	6	5	3	3	8	4
+9	+7	+1	+2	+1	+4	+4	+9	+2	+4

Math-Drills.Com



Pachycephalosaurus



HVTECHFEST

2019

# Conformity and Silos in Education



HVTECHFEST

2019

# Silos in Technology → Education and Retraining

Some examples...

Databases

IOT

Blockchain

AI

What is your specialty?  
What is your area of expertise?



HVTECHFEST

2019

# Trivia...

The **average** person will **change** careers **5-7** times during their working life...

Approximately **30%** of the total workforce will now **change** jobs every **12** months.

Career Change Statistics: How Many Times Will You Change ...

<https://www.careers-advice-online.com › career-change-statistics>



HVTECHFEST

2019

# How can we



**BREAKTHROUGH**

# these walls?



HVTECHFEST

2019

# Observations at a Playground

- Ladder
- Slide
- Rock Wall
- Stairs
- Swing
- Jungle Gym
- Glider
- Zipline
- Telescope
- Etc...



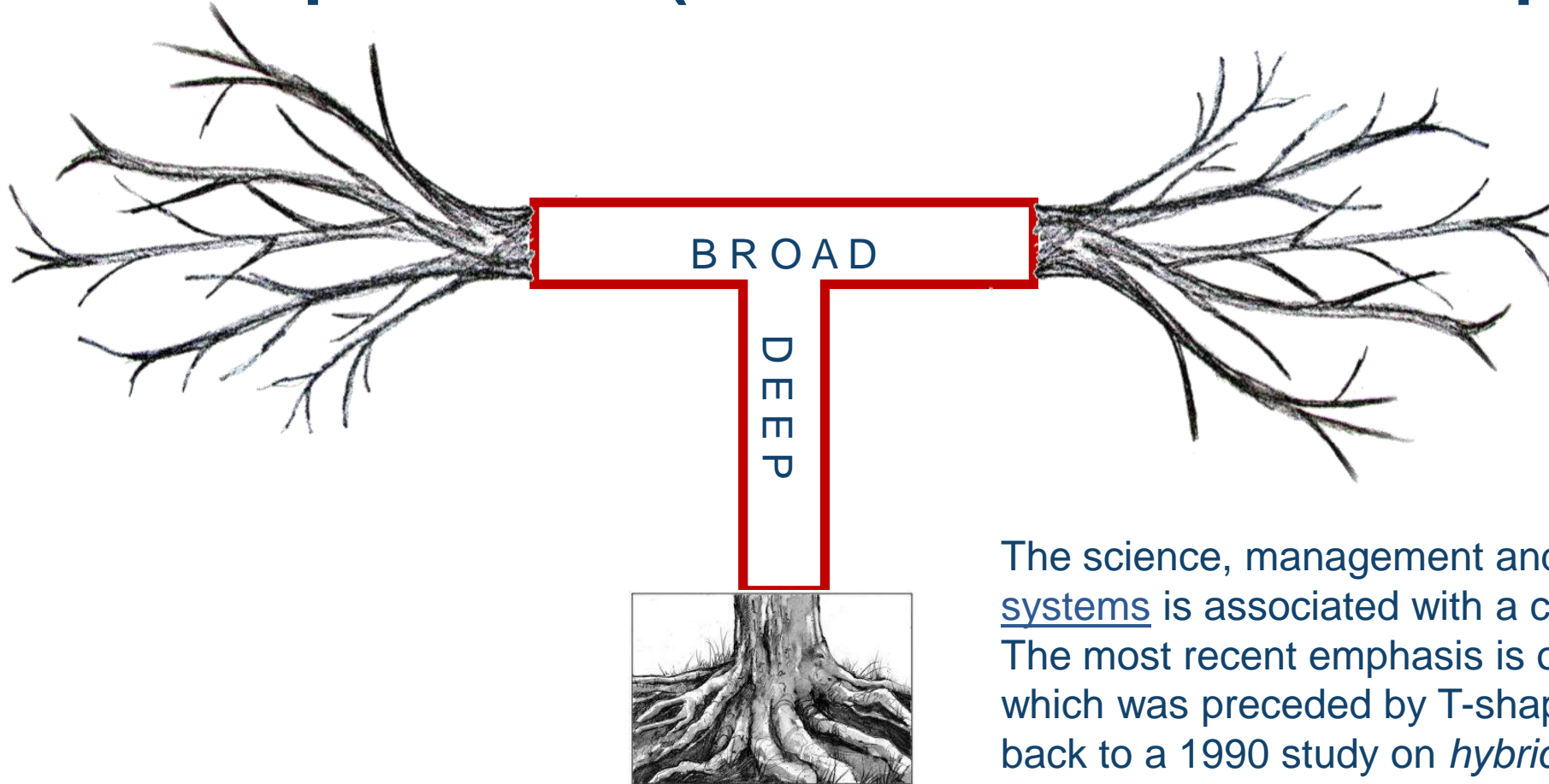
**Children can easily transition from one task to another.  
Why can't adults?**



HVTECHFEST

2019

# T-Shaped Skills (also known as Tree-Shaped Skills)



The science, management and engineering of service systems is associated with a call for *T-shaped people*. The most recent emphasis is on T-shaped *professionals*, which was preceded by T-shaped *skills*, with linkages back to a 1990 study on *hybrid managers*.

<http://coevolving.com/blogs/index.php/archive/t-shaped-professionals-t-shaped-skills-hybrid-managers/>



HVTECHFEST

2019

# Tree-Shaped Skills

There is **huge** value in one employee that can span **multiple disciplines** with a **broad** set of **high-level** knowledge as well as a **broad depth** of knowledge.

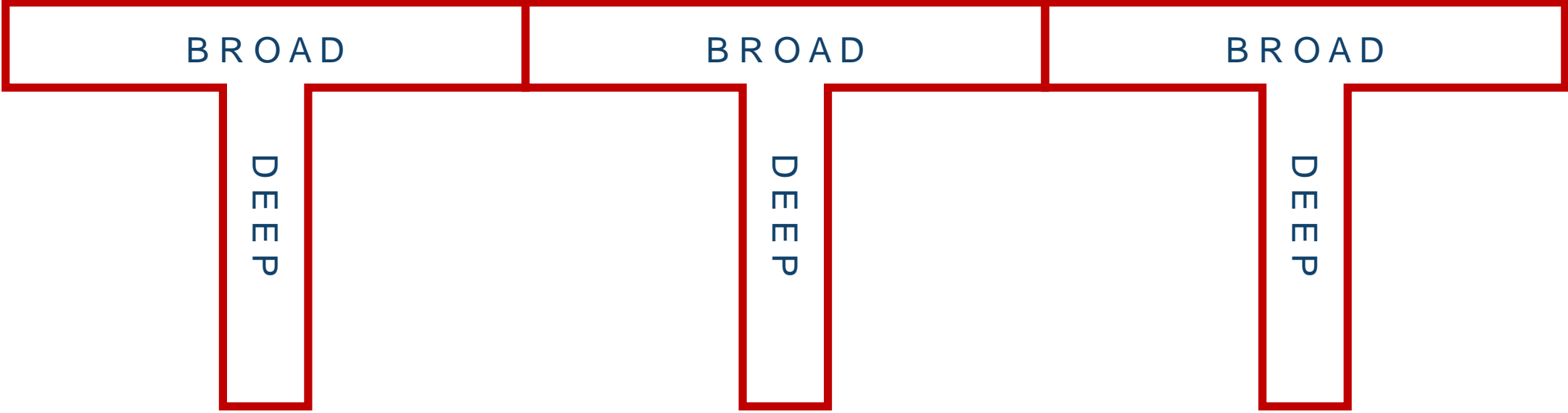
<https://www.linkedin.com/pulse/why-tree-shaped-employees-worth-10-t-shaped-jake-rudin/>



HVTECHFEST

2019

# Tree-Shaped Skills

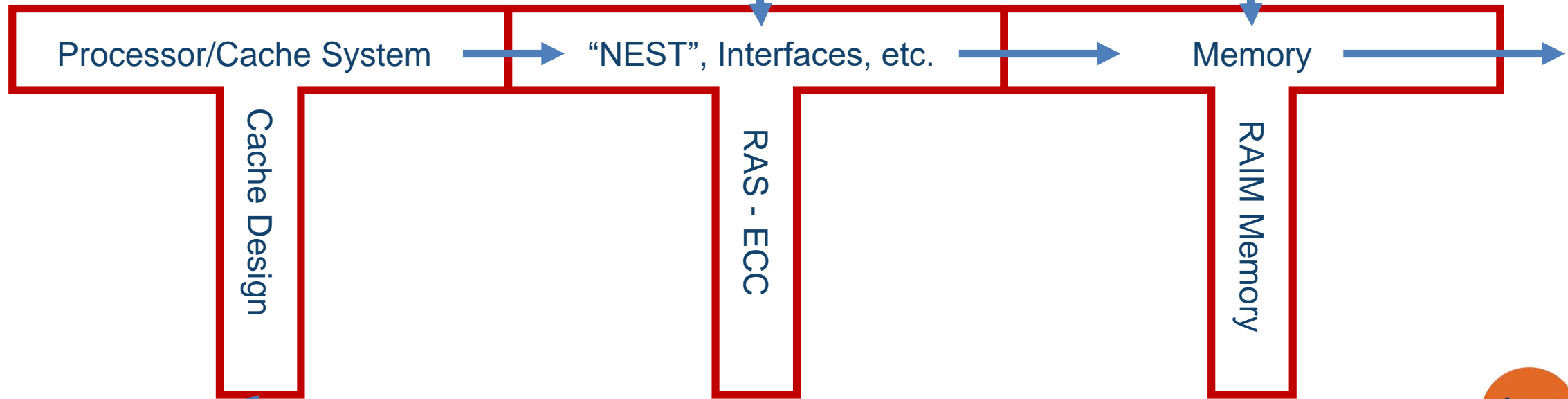


# Example: My early career

## - Encourage continuous growth

- Personal Interest in how computers can self-correct themselves.

- RAS Review Board
- New need Arose...



College, First job:



HVTECHFEST

2019

# “bramble”-Shaped Skills

## Propagating Blackberries

Blackberries are easily propagated, so you can make many plants out of one.

You can propagate by tip layering or tip rooting.

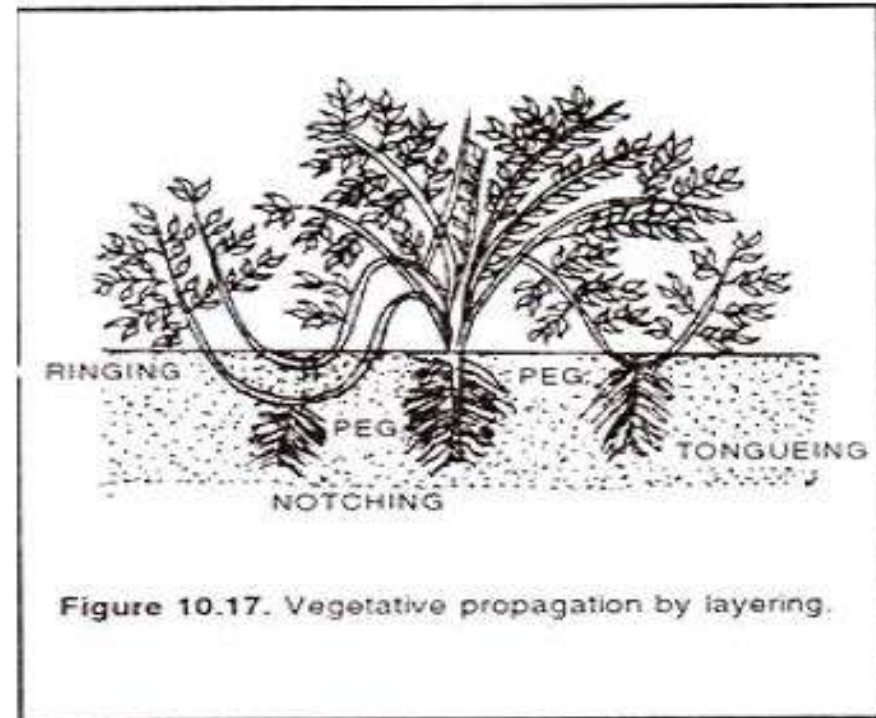
Simply take the tip of one cane, pull it over to the ground and cover with soil. After 2 to 3 weeks, it will develop its own root system and can be cut off the cane.

<https://www.gardeningknowhow.com/garden-how-to/propagation/layering/propagation-by-layering.htm>

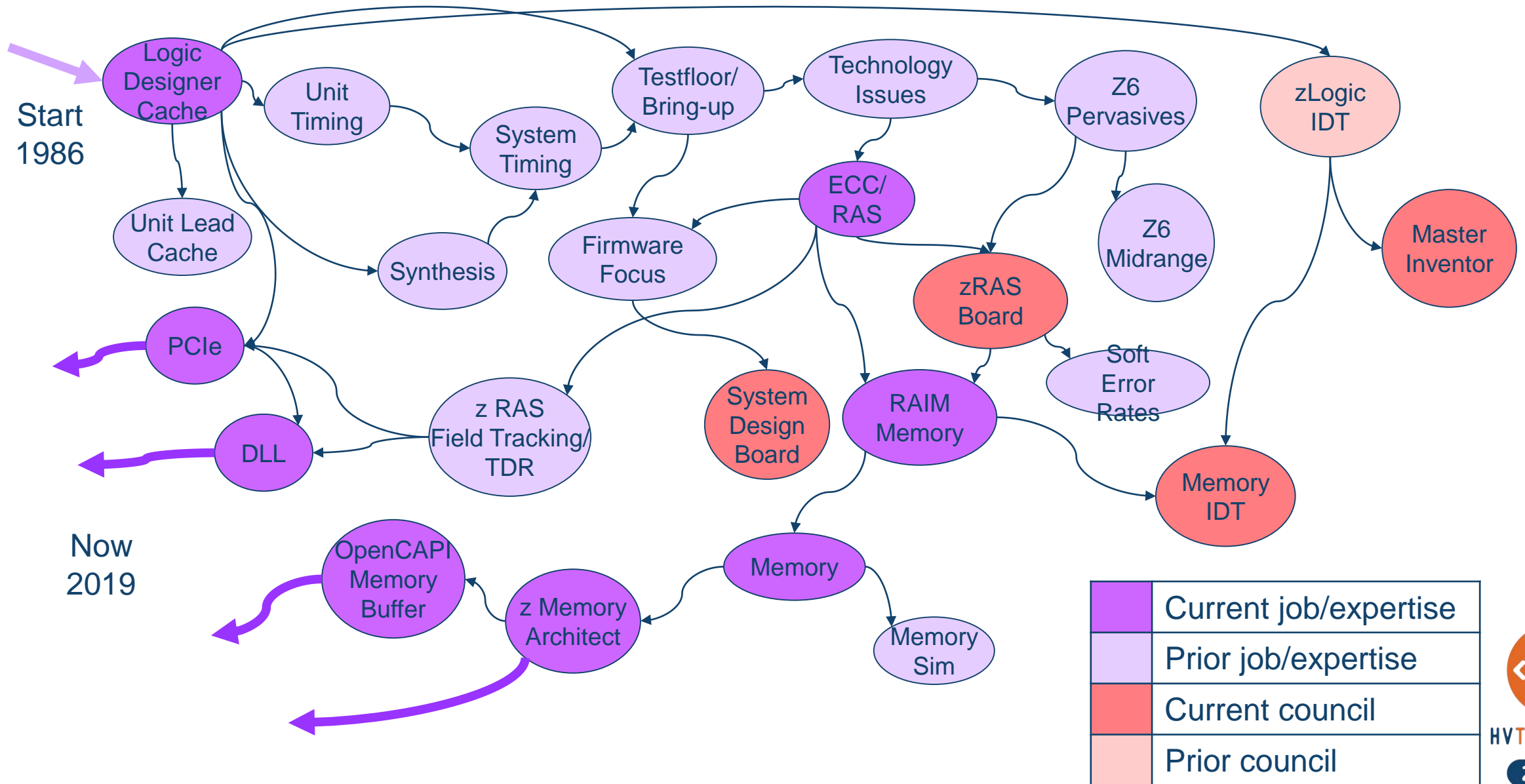
## *Blackberries*



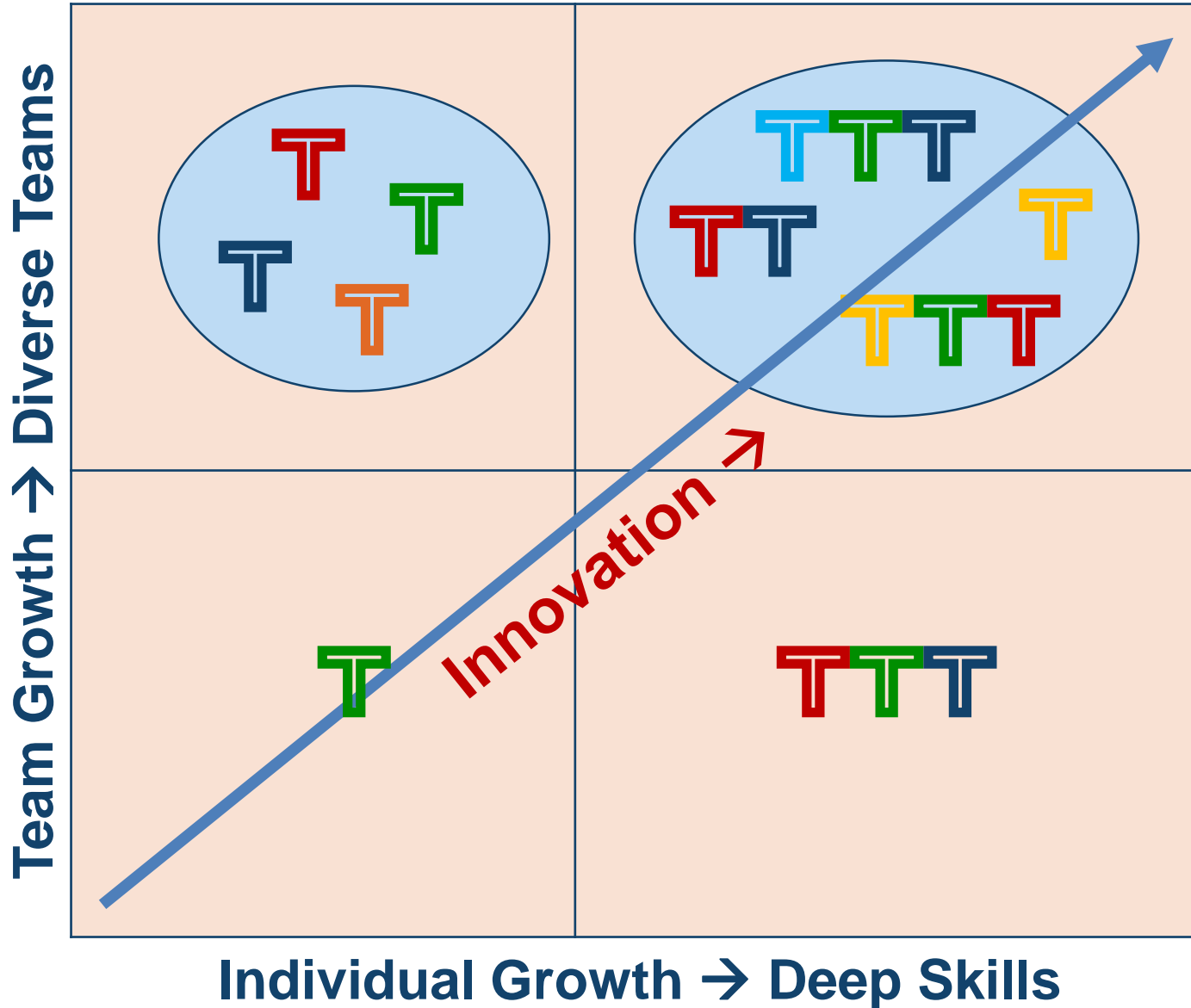
How to  
grow and  
propagate  
your own



# My Bramble-Shaped Career – Pat Meaney



# Innovation favors diverse teams with deep/broad skills!



# glass ceiling –

An unacknowledged — and ultimately illegal — **barrier to advancement**, especially for women and people of color: The term dates from the 1980s.



**Do we think**

**Unconscious Bias**

**can play a role?**



# Who am I?

10/10/2019

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

# Who am I?



1 \_\_\_\_\_



2 \_\_\_\_\_



3 \_\_\_\_\_



4 \_\_\_\_\_



5 \_\_\_\_\_



6 \_\_\_\_\_

- A. Nurse
- B. Construction Manager & Structural Engineer
- C. National Teacher of the Year
- D. Commercial Pilot
- E. Retired Military Officer
- F. Stay-at-Home Parent

# Who am I?



B. Construction Manager



2 \_\_\_\_\_



3 \_\_\_\_\_



4 \_\_\_\_\_



5 \_\_\_\_\_



6 \_\_\_\_\_

- A. Nurse
- B. Construction Manager & Structural Engineer
- C. National Teacher of the Year
- D. Commercial Pilot
- E. Retired Military Officer
- F. Stay-at-Home Parent

# Who am I?



B. Construction Manager



A. Nurse



3 \_\_\_\_\_



4 \_\_\_\_\_



5 \_\_\_\_\_



6 \_\_\_\_\_

- A. Nurse
- B. Construction Manager & Structural Engineer
- C. National Teacher of the Year
- D. Commercial Pilot
- E. Retired Military Officer
- F. Stay-at-Home Parent

# Who am I?



B. Construction Manager



A. Nurse



D. Pilot



4 \_\_\_\_\_



5 \_\_\_\_\_



6 \_\_\_\_\_

- A. Nurse
- B. Construction Manager & Structural Engineer
- C. National Teacher of the Year
- D. Commercial Pilot
- E. Retired Military Officer
- F. Stay-at-Home Parent

# Who am I?



B. Construction Manager



A. Nurse



D. Pilot



F. Stay-at-Home Parent



E. Army Officer



C. Teacher

- A. Nurse
- B. Construction Manager & Structural Engineer
- C. National Teacher of the Year
- D. Commercial Pilot
- E. Retired Military Officer
- F. Stay-at-Home Parent

What **UNCONSCIOUS ASSUMPTIONS** influenced your thinking?

# WHY did you get your answers?

Type of bias	Definition
Availability bias	Making mental shortcuts that help us make quick and efficient decisions
Confirmation bias	Tendency to process information in a way that confirms one's beliefs and gives less consideration to alternative possibilities.
Affinity/Similarity bias	Tendency to warm up to and prefer people like ourselves



# 1. Gender Pay Gap

## UNCONTROLLED GENDER PAY GAP

THIS MEASURES MEDIAN SALARY FOR ALL MEN AND ALL WOMEN



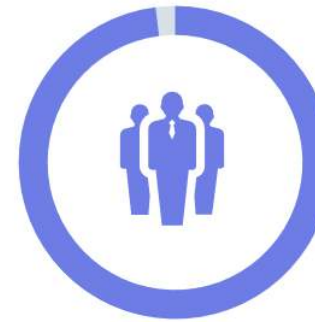
WOMEN EARN

**79¢**

FOR EVERY \$1 EARNED BY MEN

## CONTROLLED GENDER PAY GAP

THIS MEASURES MEDIAN SALARY FOR MEN AND WOMEN WITH THE SAME JOB AND QUALIFICATIONS.



WOMEN EARN

**98¢**

FOR EVERY \$1 EARNED BY MEN

**Same Job  
Same Work**

**Getting closer.**

**Lack of  
Opportunities -  
Glass Ceiling**

<https://www.payscale.com/data/gender-pay-gap#section03>

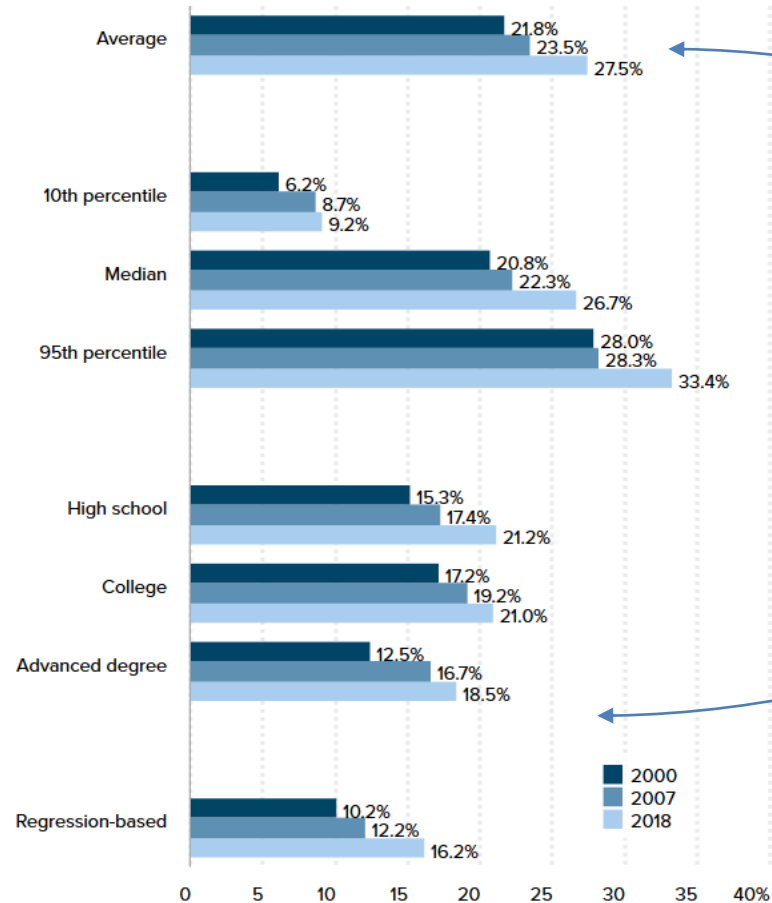


# 2. Racial Pay Gap

## Black–white wage gaps widen across multiple measures

Black–white wages gaps at different points in the wage distribution, by education, and regression-based, 2000, 2007, and 2018

Best-case  
Worst-case



Gap is getting worse!

<https://www.epi.org/blog/stark-black-white-divide-in-wages-is-widening-further/>



HVTECHFEST

2019

### 3. Neurodiversity (including Autism)

There will be **500,000** adults on the autism spectrum aging into adulthood over the next 10 years.

**Lack of Opportunities -  
Glass Door!**

Yet a whopping **85%** of college grads affected by autism are unemployed!  
(compared to the national unemployment rate of **4.5%**)

- *SOURCE: <https://moneyish.com/heart/most-college-grads-with-autism-cant-find-jobs-this-group-is-fixing-that/>*
- *SOURCE: Harvard Business School, SAP SE: Autism at Work 9-616-042*



## Divide into three groups:

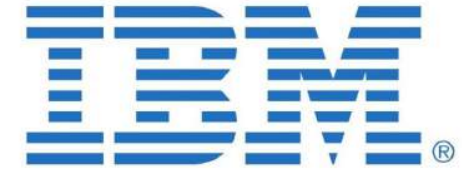
1. Gender Pay Gap & Opportunities
  2. Racial Pay Gap & Opportunities
  3. Neurodiversity Pay Gap & Opportunities
- What are some of the barriers and contributing factors?
  - How can we break down barriers for this group?
  - How can we leverage colleges and businesses?
  - How can we use Social Media?
  - How can we encourage more diverse thinking?
  - What can we do uniquely in the Hudson Valley?



## Closing Discussion:

- Summarize the various Groups/Ideas.
- How can we encourage more Diverse Thinking?
- Follow-up discussions and ideas are encouraged!
  
- Conclusions





# Questions?

Patrick Meaney: [meaney@us.ibm.com](mailto:meaney@us.ibm.com)

[Linked In: patrick-meaney-20920058](https://www.linkedin.com/in/patrick-meaney-20920058)

[Twitter: meaneypjm](https://twitter.com/meaneypjm)



# References

- <https://www.careers-advice-online.com › career-change-statistics>
- <http://coevolving.com/blogs/index.php/archive/t-shaped-professionals-t-shaped-skills-hybrid-managers/>
- <https://www.linkedin.com/pulse/why-tree-shaped-employees-worth-10-t-shaped-jake-rudin/>
- <https://www.gardeningknowhow.com/garden-how-to/propagation/layering/propagation-by-layering.htm>
- [https://cdn.ymaws.com/www.shrmatlanta.org/resource/resmgr/25th\\_Conf\\_PPTs/Douglas\\_Kimberly\\_PPT.pdf](https://cdn.ymaws.com/www.shrmatlanta.org/resource/resmgr/25th_Conf_PPTs/Douglas_Kimberly_PPT.pdf)
- <https://www.payscale.com/data/gender-pay-gap#section03>
- <https://www.epi.org/blog/stark-black-white-divide-in-wages-is-widening-further/>
- <https://moneyish.com/heart/most-college-grads-with-autism-cant-find-jobs-this-group-is-fixing-that/>





# HVTECHFESTIVAL

Technology Driven Economic Development



**OpenHub**

Innovation | Collaboration | Education



**Mount Saint Mary College**



# Breaking Glass Ceilings and Walls

## Encouraging Diverse Thought Leaders

- Glass Walls
  - Silos in Education
  - Tree-Shaped Skills
- Glass Ceilings
  - Current Statistics
  - Unconscious Bias
  - Gender Pay Gap
  - Racial Pay Gap
  - Neurodiversity and Autism
  - Break-out Discussions
- Conclusions
  - Encouraging Diverse Thinking
  - Growing Tree-Shaped Careers

Full outline