

Tapping Your Inner Futurist

**The Evolving Workplace: How Culture,
Demographics and Technology Are
Changing the How, Where and When of Work**



Garry Golden
Forward Elements Inc



November 8, 2016

Start

End



***More or Less?
Foresight 101***

8:45 a.m.

Break
9:30 a.m.



Drivers of Change

9:45 a.m.

Break
10:50 a.m.



***Trend Card Activity
Foresight as Culture***

11:00 a.m.

**Last
ten years**

2005 – 2015

**Next
ten years**

2016-2026

More or Less Change Ahead?

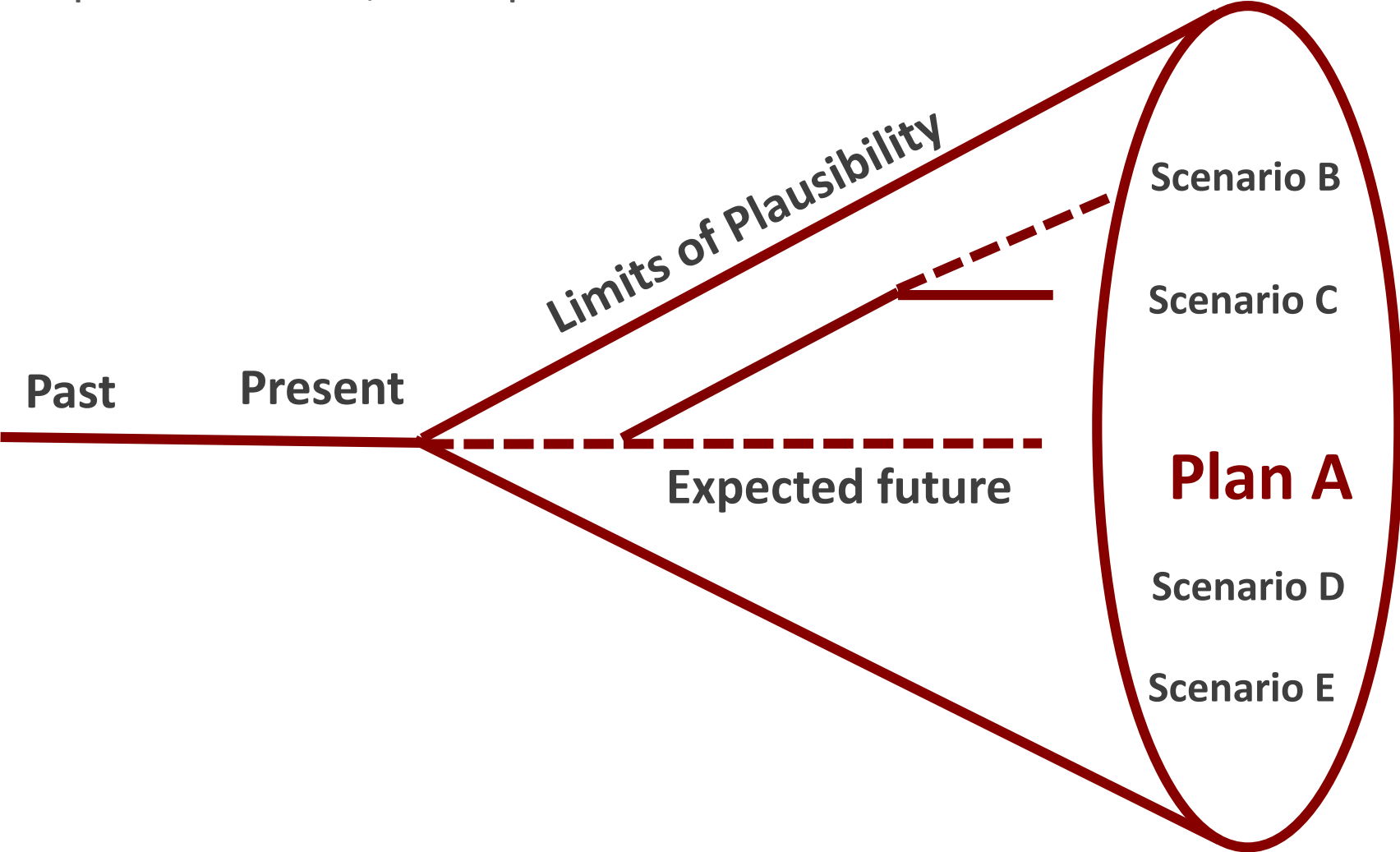



Tapping My Inner “Futurist”?



Foresight 101: Cone of Plausibility

Multiple Outcomes, Multiple Time Horizons



A close-up photograph of a person's hand holding a small, white, rectangular piece of paper. The paper is held between the thumb and index finger, with the rest of the hand visible in the lower-left corner. The background is a solid, dark black. The text on the paper is printed in a clean, black, sans-serif font. The paper is slightly tilted, and the lighting is soft, highlighting the texture of the skin and the edges of the paper.

Your CEO will triple
the HR budget

IF YOU HIT THIS SIGN
YOU WILL HIT THAT BRIDGE





WAIT FOR IT

.....Wait for it.....

**Every day I make an effort to move toward
what I do not understand.**

- Cellist, Yo-Yo Ma

Four Futures Thinking

?



**Continued
Growth**

**Disciplined
- Constrained**



Transformed

BlackBerry.



NOKIA

**Decline
- Collapse**

Four Futures Thinking for HR, Organization + Sector?



**Continued
Growth**



**Disciplined
- Constrained**



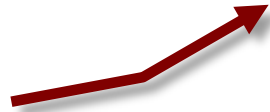
Transformed



**Decline
- Collapse**

Three Mechanisms of Change

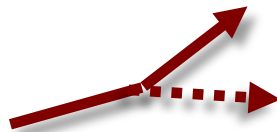
Trends
(Continuities)



Plausible
Future

Forecasts

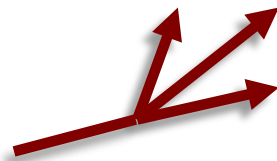
Events
(Discontinuities)



Possible
Futures

Scenarios

Choices
(Discontinuities)



Preferred
Future

Visions

In the News



IBM invested \$8m in Austin-based startup **Compli.ai** which is developing a *chatbot* to enable regulatory compliance in the healthcare sector.

True

False

*Creepy Line or Compelling Outcomes
of Data-driven Experiences*

Google

Is this dynamic inevitable for...

Human Resources

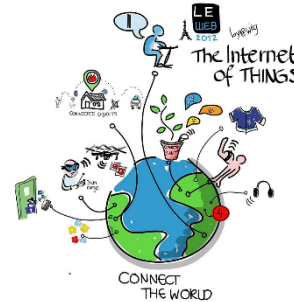
HR Implications of Creepy vs Compelling Lines



**Social
Data**



**Health
Data**



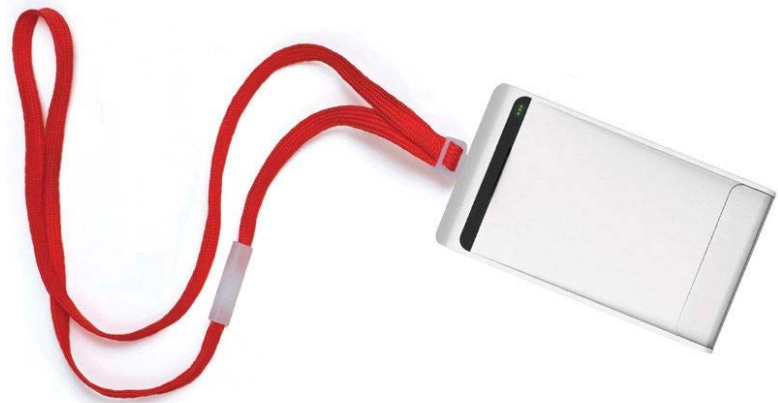
**Device
Data**



**Learning & Work
Performance Data**

Assumption to Explore

HR will be central to culture shift of data-driven workplaces using advanced analytics and AI assistants that test the creepy vs compelling line of organization outcomes.

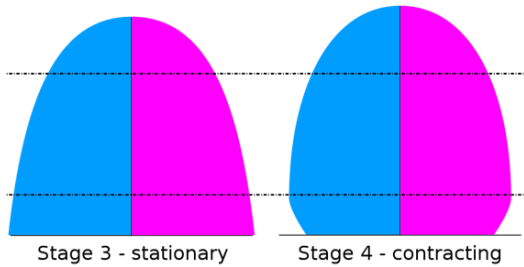


Assumption to Explore:

By 2020, 20% of your organization's talent will use *connected data* to support *Intelligent Assistants* that drive their collaboration and performance.

Implications for HR?

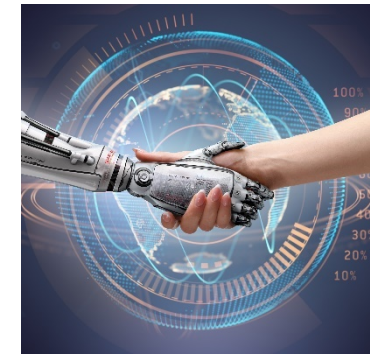
- Culture (esp. Managers)
- Regulatory (Risks + Opps)
- Data Security
- Data (AI) Ownership



***Demographics
+ Workforce***



***Data-driven Workforce:
Training
+ Performance***



***AI-Driven
Workplace***

End



*More or Less?
Foresight 101*



Drivers of Change



***Trend Card Ideation
Foresight Culture***

10 Minutes



End



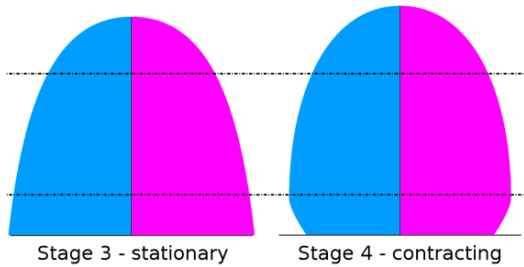
*More or Less?
Foresight 101*



Drivers of Change



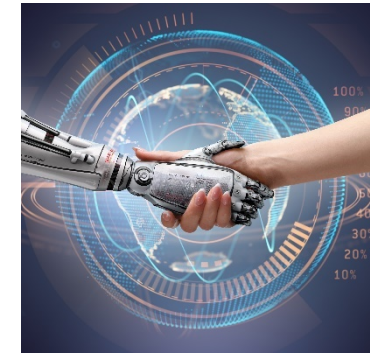
Foresight Culture



***Demographics
+ Workforce***

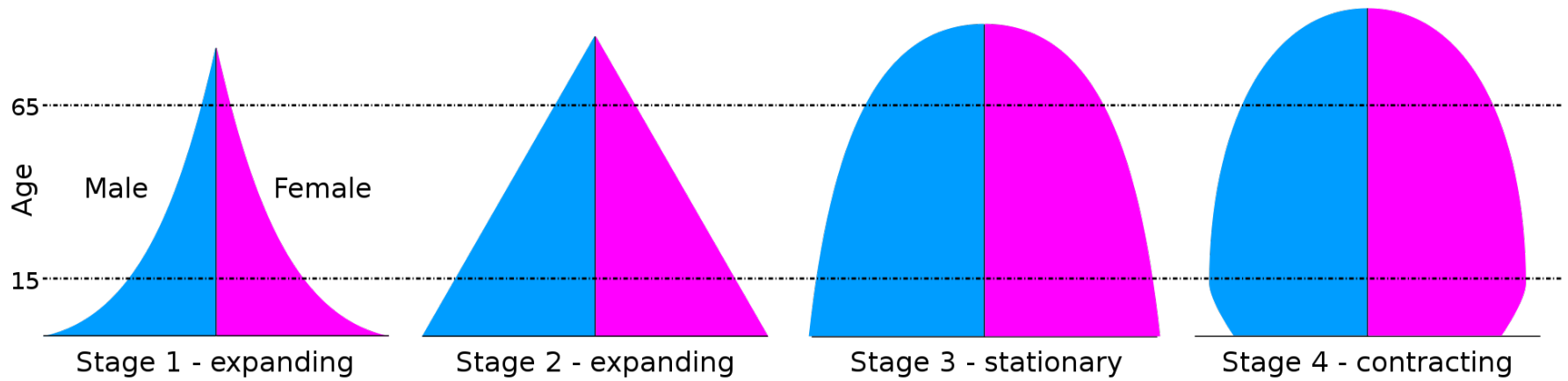


***Data-driven Workforce:
Training
+ Performance***



***AI-Driven
Workplace***

Globalization Reshaped by Demographic Transitions



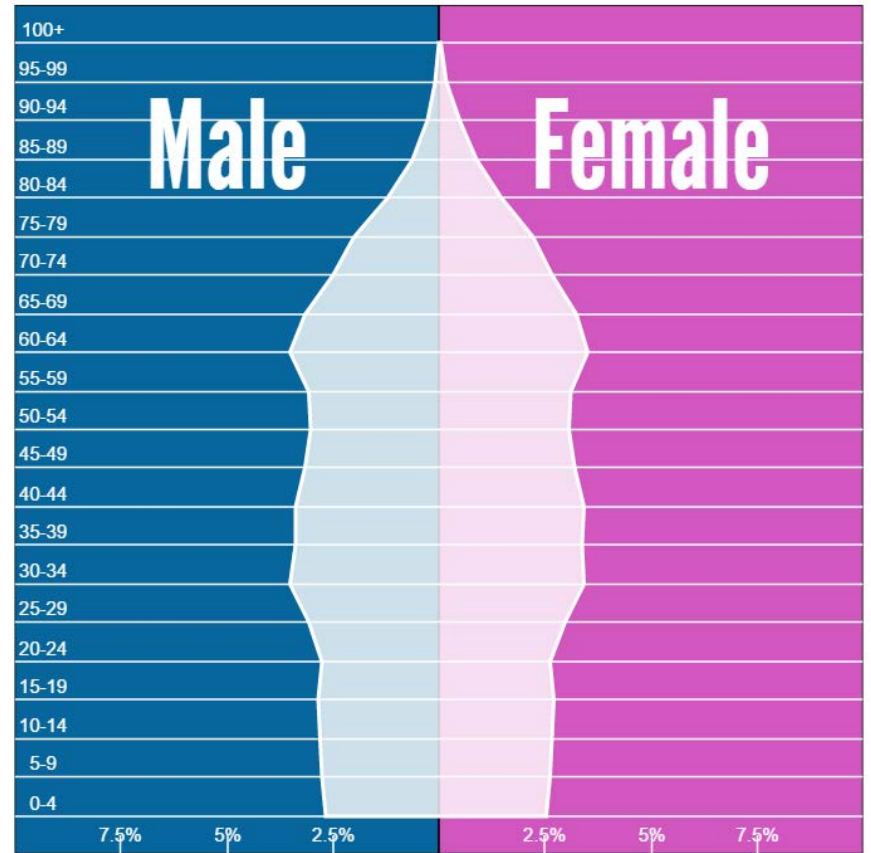
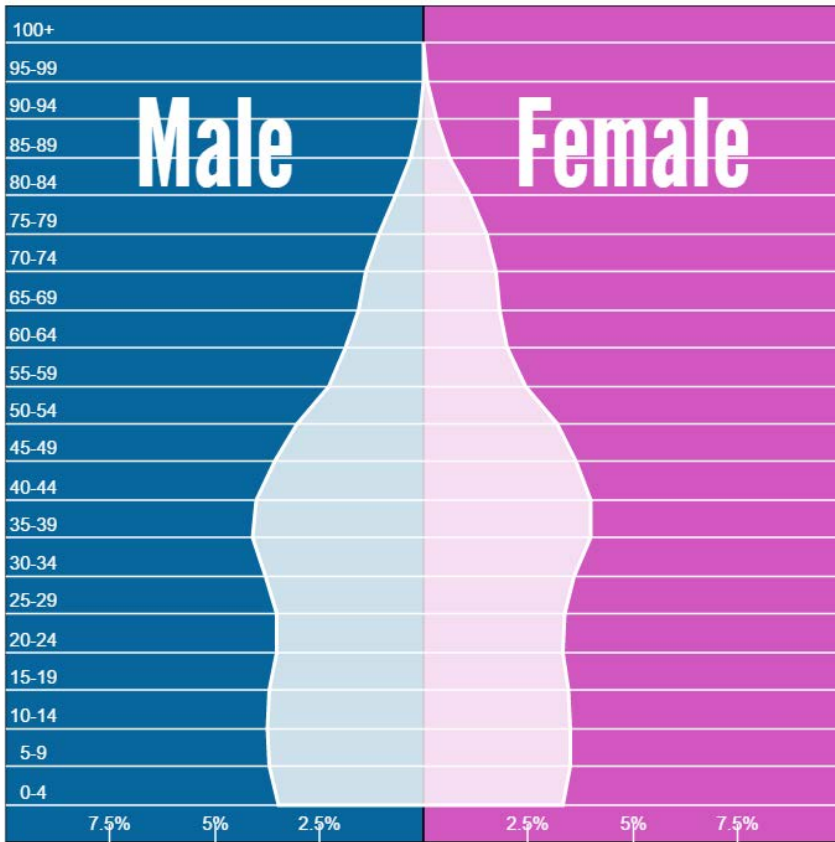
Global Economy + Waning Demographic Dividend

United States of America 2000

Population: **282.895.000**

Canada 2025

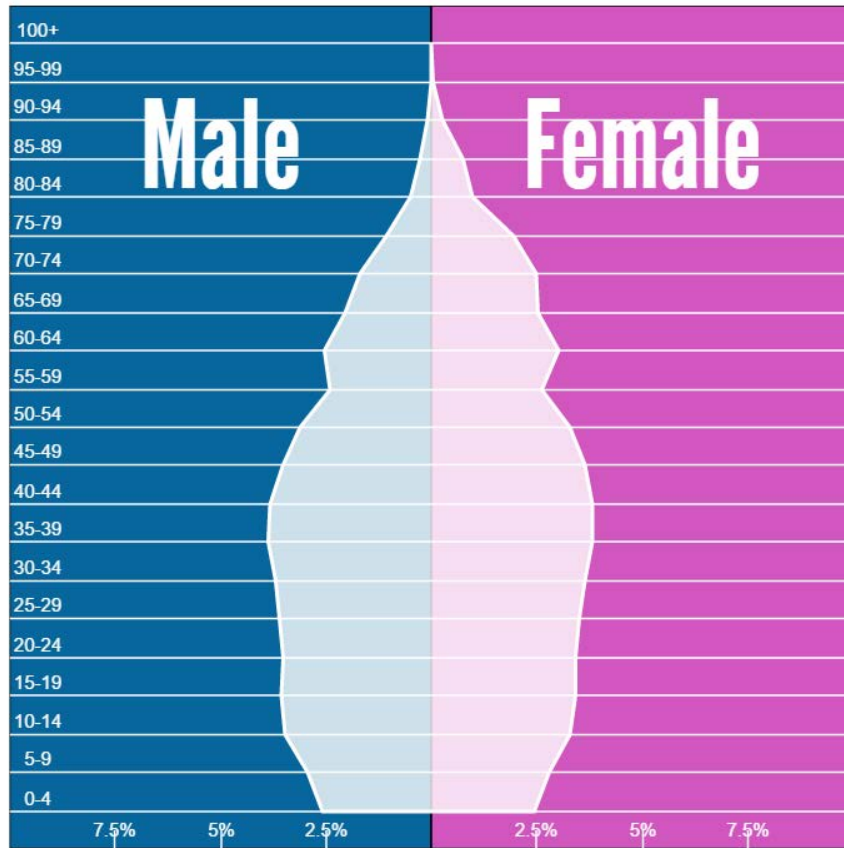
Population: **39.065.000**



Europe's Demographic Liability

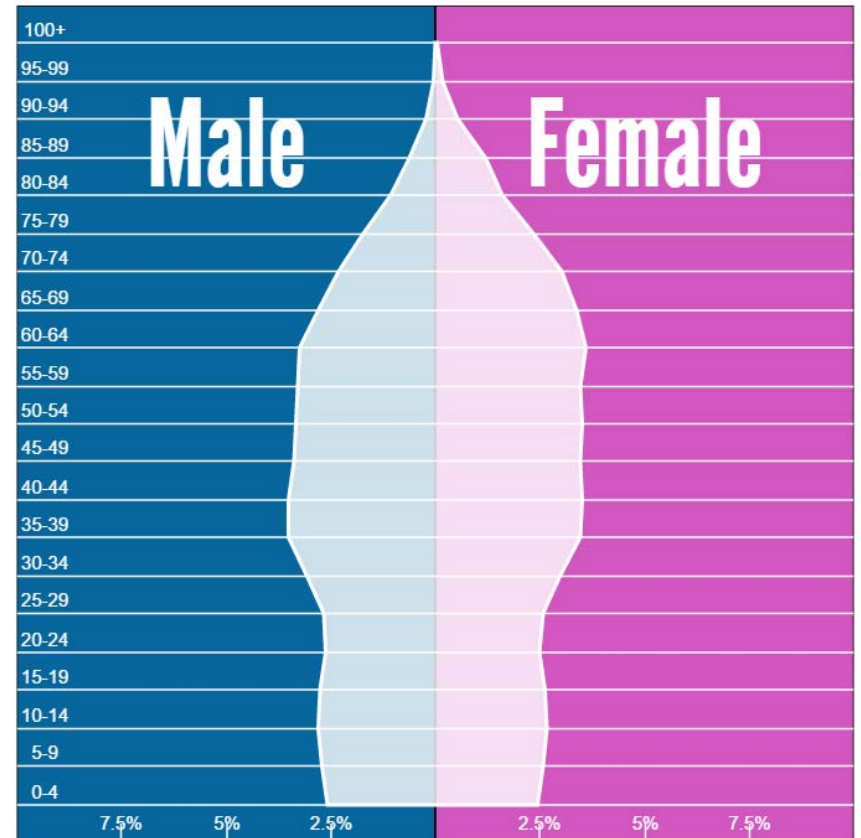
EUROPE 2000

Population: **726.407.000**



EUROPE 2025

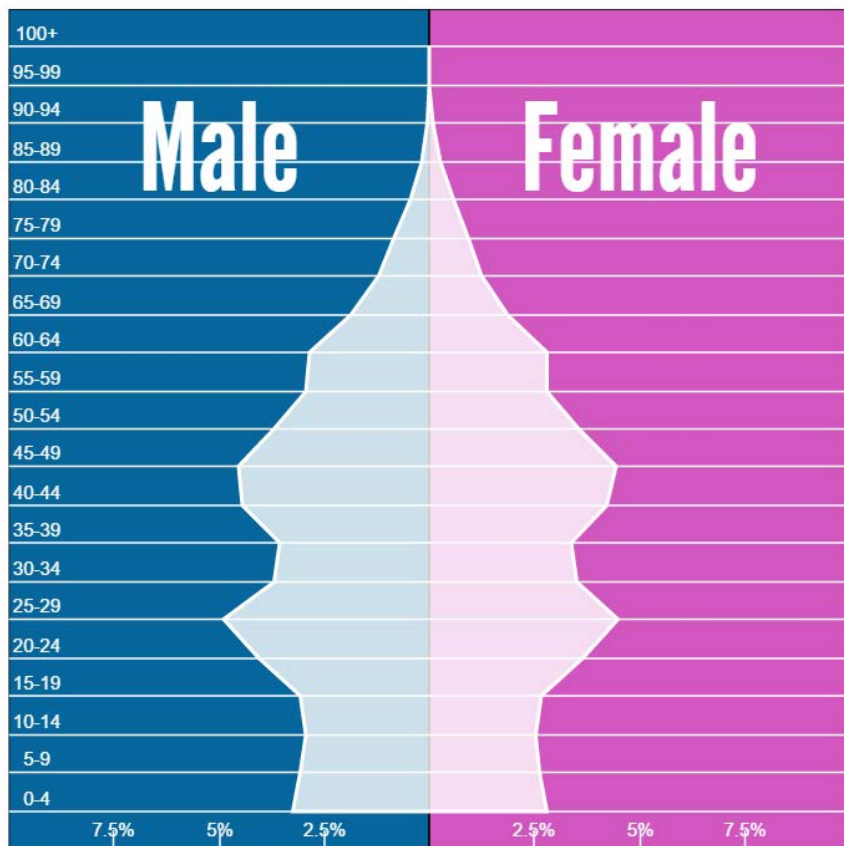
Population: **738.089.000**



China: Workforce Constraints + Delayed Consumerization

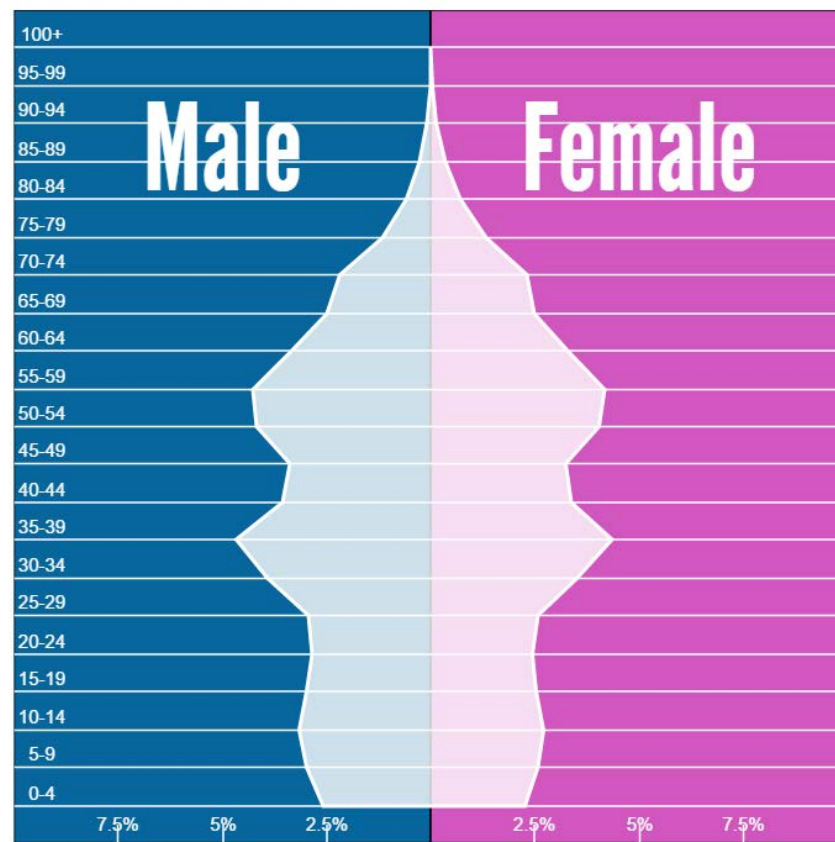
China 2015

Population: 1.376.048.000



China 2025

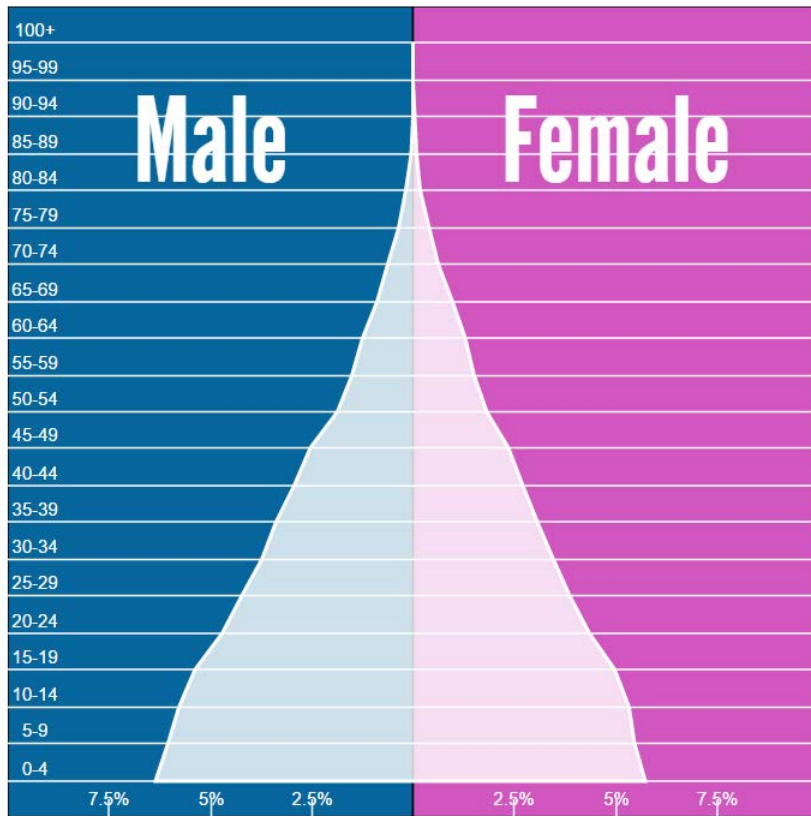
Population: 1.414.872.000



Watching and Waiting for Global Demographic Dividends

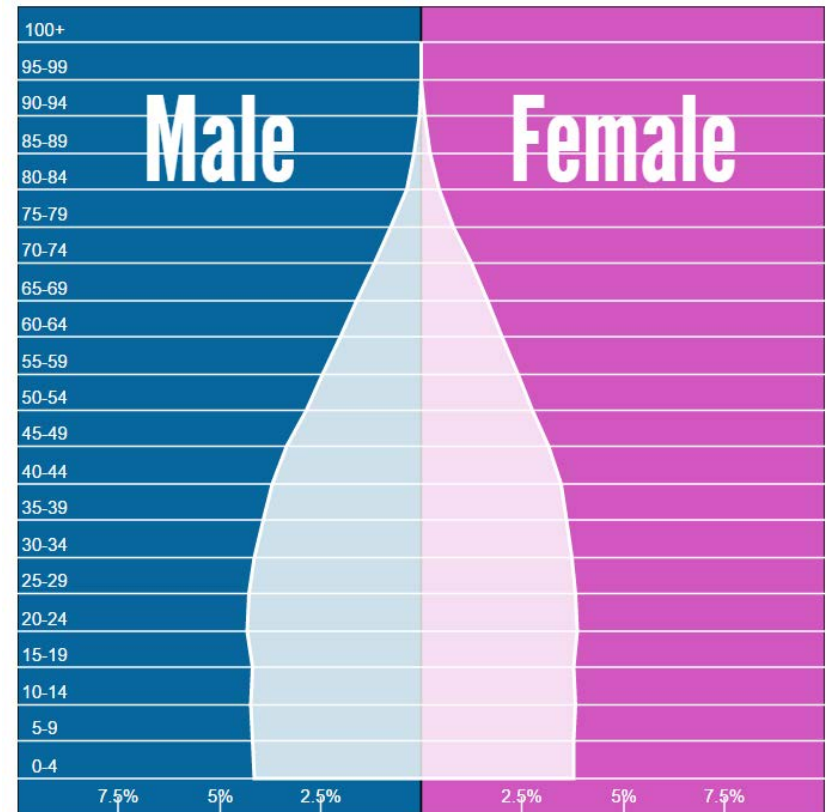
**India
2000**

Population: **1.053.481.000**



**India
2030**

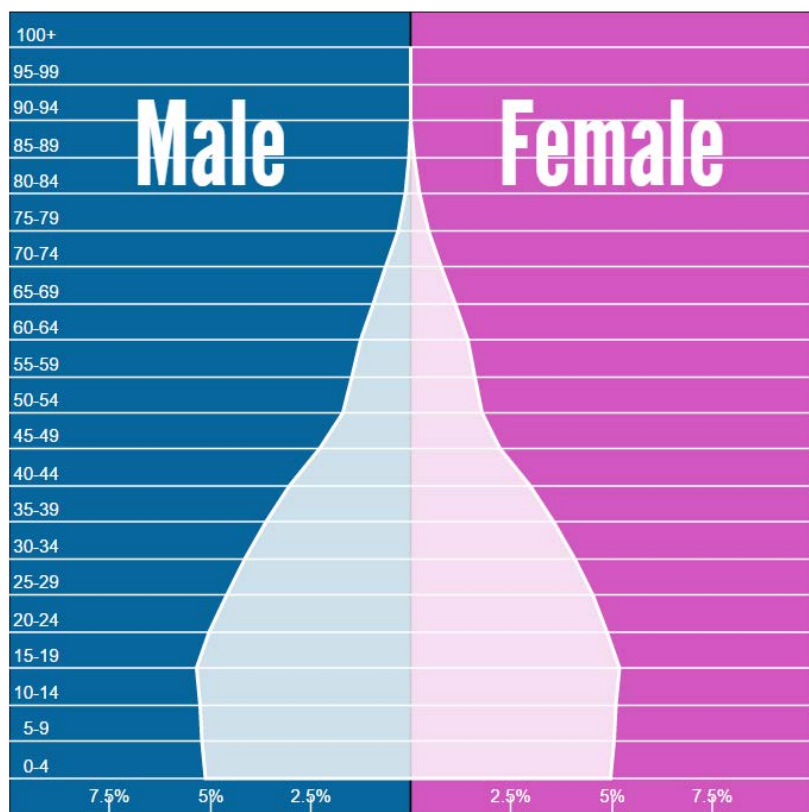
Population: **1.527.657.000**



Watching and Waiting for Global Demographic Dividends

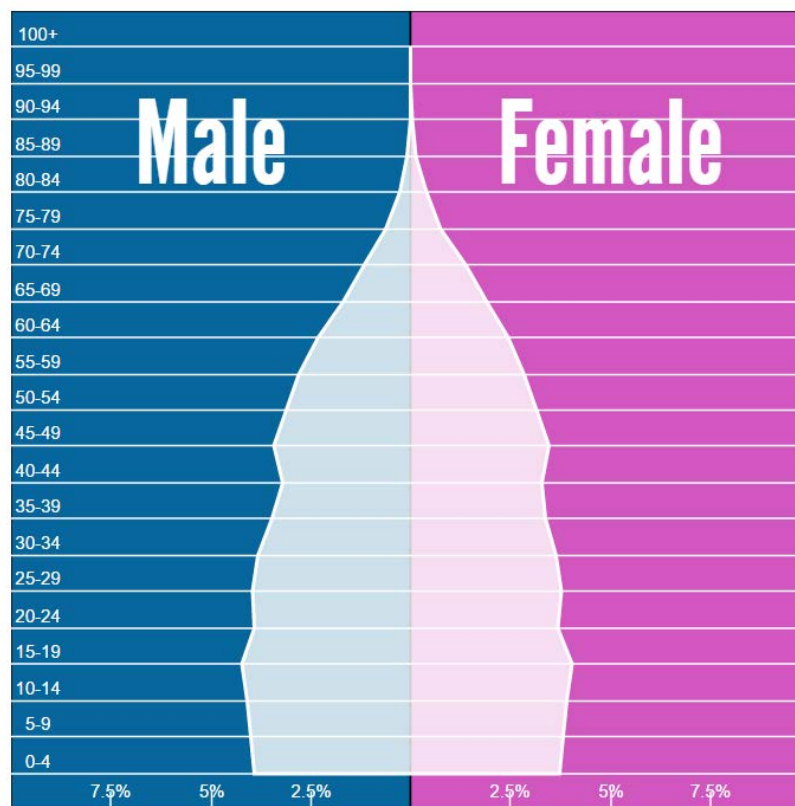
Indonesia 2000

Population: **211.540.000**



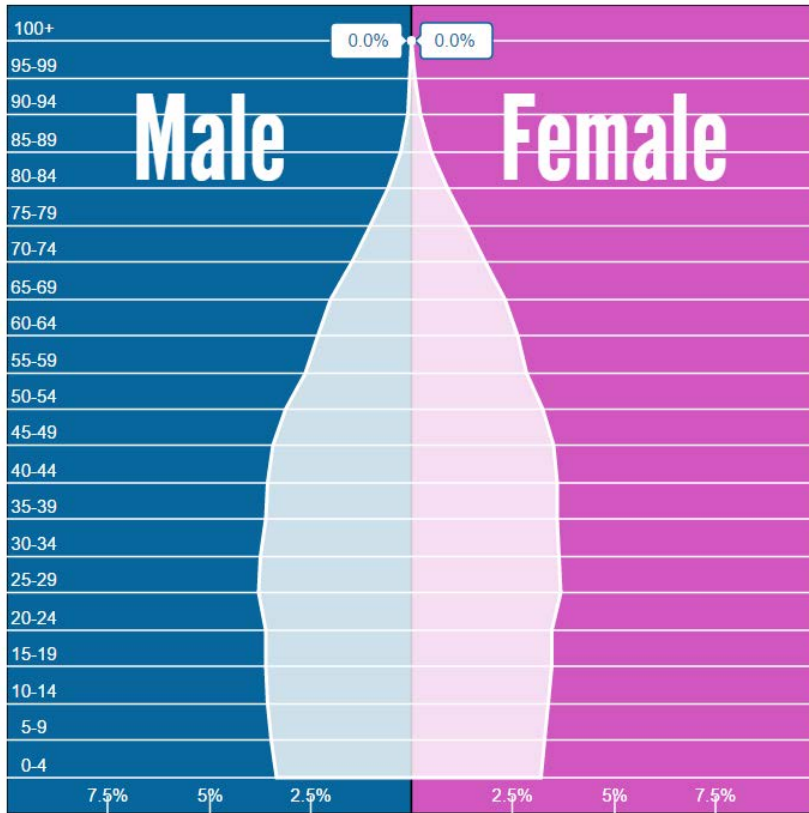
Indonesia 2030

Population: **295.481.000**



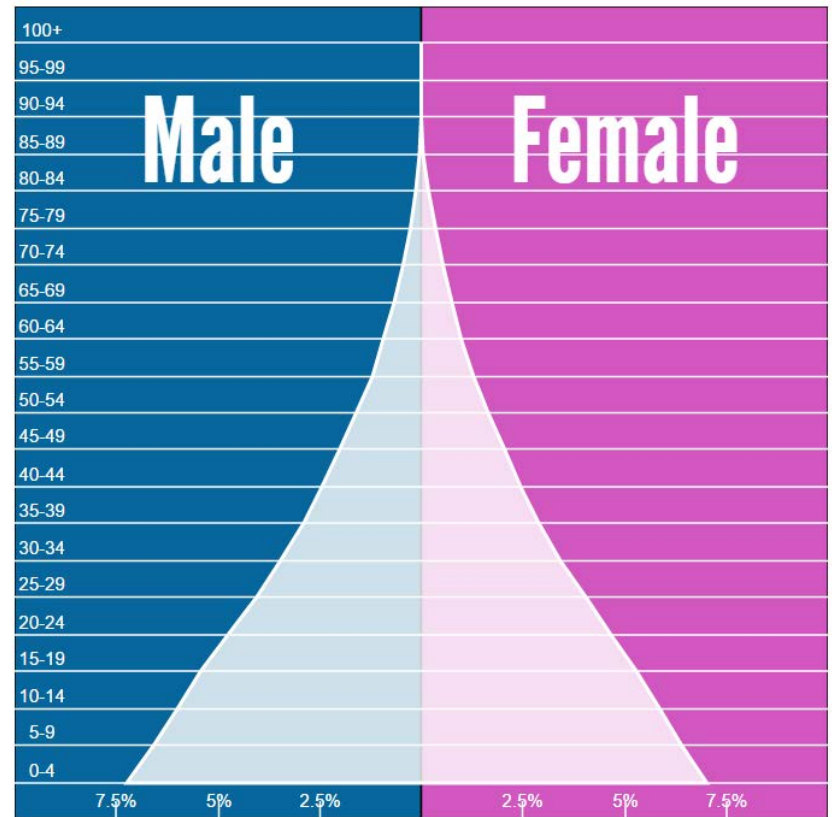
South America 2030

Population: **470.965.000**

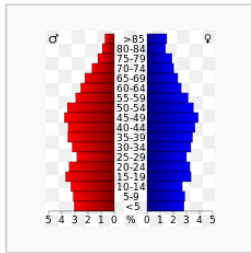


Sub-Saharan Africa 2030

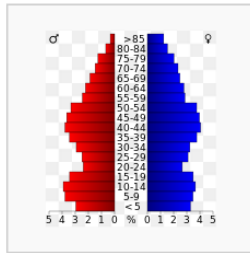
Population: **1.396.853.000**



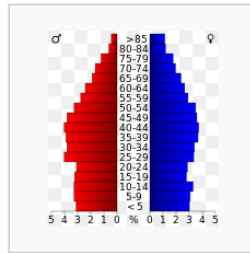
Do We Understand Regional Population Pyramids?



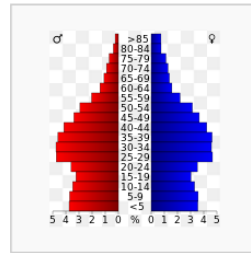
USA Madison County,
North Carolina age pyramid
7 KB



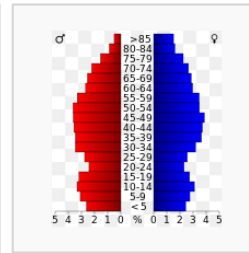
USA Martin County,
North Carolina age pyramid
7 KB



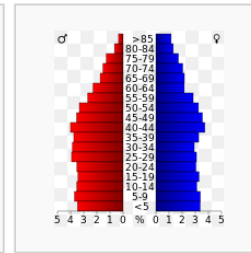
USA McDowell County,
North Carolina age pyramid
7 KB



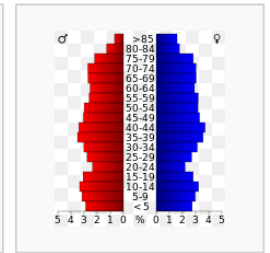
USA Mecklenburg
County, North Carolina
age pyramid.svg
8 KB



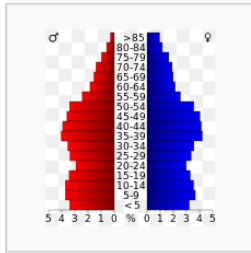
USA Mitchell County,
North Carolina age pyramid
7 KB



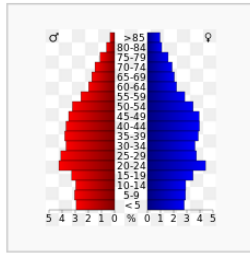
USA Montgomery
County, North Carolina
age pyramid.svg
7 KB



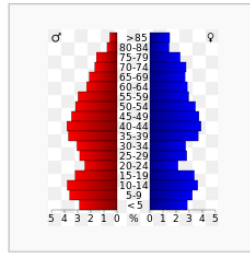
USA Moore County,
North Carolina age pyramid
7 KB



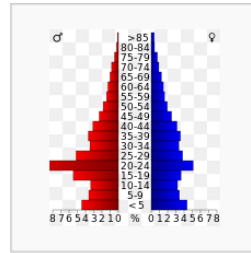
USA Nash County, North
Carolina age pyramid.svg
8 KB



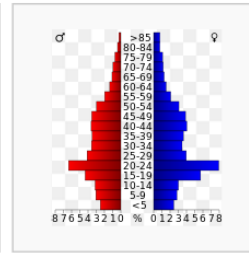
USA New Hanover
County, North Carolina
age pyramid.svg
8 KB



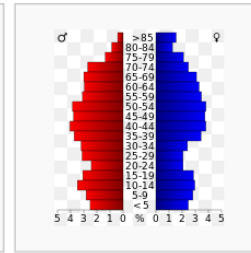
USA Northampton
County, North Carolina
age pyramid.svg
7 KB



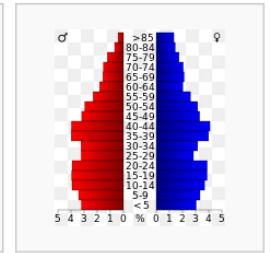
USA Onslow County,
North Carolina age pyramid
8 KB



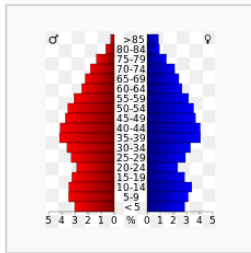
USA Orange County,
North Carolina age pyramid
8 KB



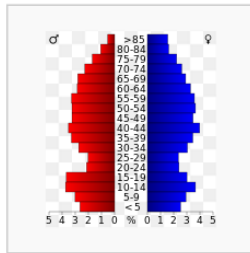
USA Pamlico County,
North Carolina age pyramid
7 KB



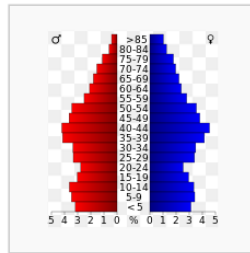
USA Pasquotank
County, North Carolina
age pyramid.svg
7 KB



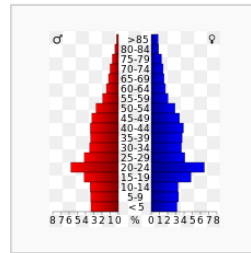
USA Pender County,
North Carolina age pyramid



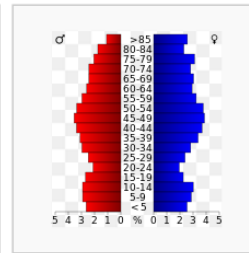
USA Perquimans
County, North Carolina



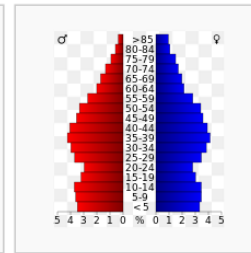
USA Person County,
North Carolina age pyramid



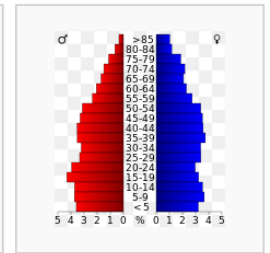
USA Pitt County, North
Carolina age pyramid.svg



USA Polk County, North
Carolina age pyramid.svg



USA Randolph County,
North Carolina age pyramid



USA Richmond County,
North Carolina age pyramid

Aging Workforce Implications



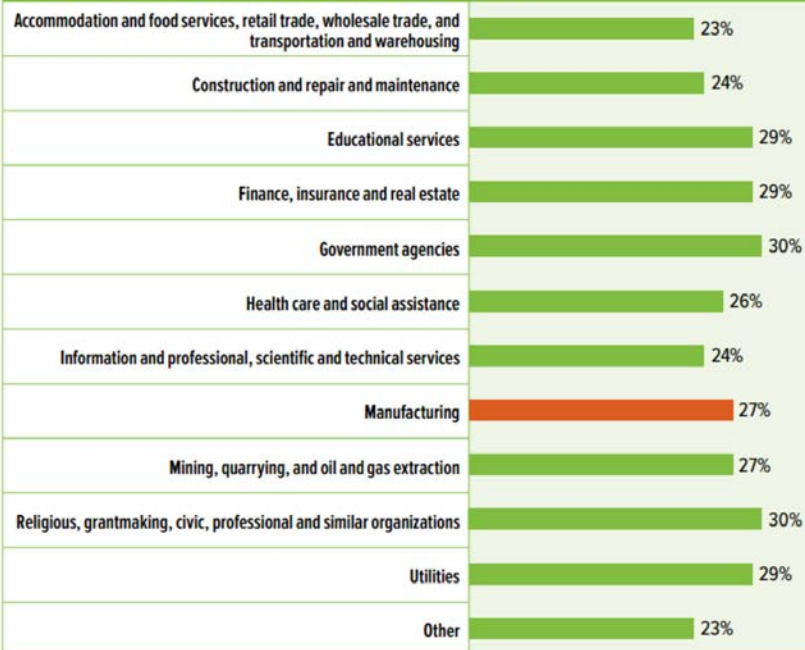
A RESEARCH REPORT BY THE SOCIETY FOR HUMAN RESOURCE MANAGEMENT (SHRM)

Preparing for an Aging Workforce

MANUFACTURING INDUSTRY REPORT



FIGURE 1 | Percentage of Older Workers, by Industry

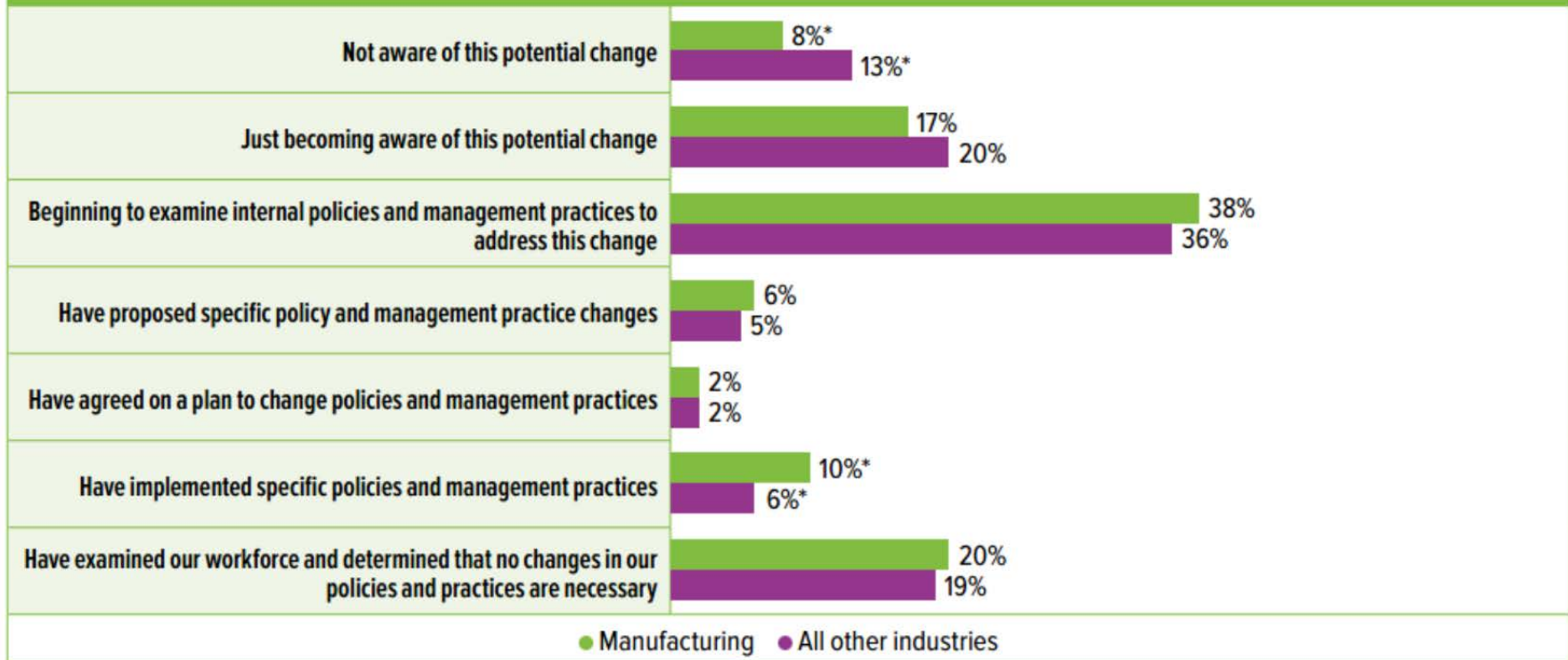


Note: Except for the "Other" group, the accommodation and food services, retail trade, wholesale trade and transportation and warehousing industry employs significantly fewer older workers than the other industries.

Source: Preparing for an Aging Workforce: Manufacturing Industry Report (SHRM, 2015)

2029: The Last Baby Boomer 65th Birthday

FIGURE 2 | How Manufacturing Organizations Are Preparing for an Aging Workforce Compared with Other Industries



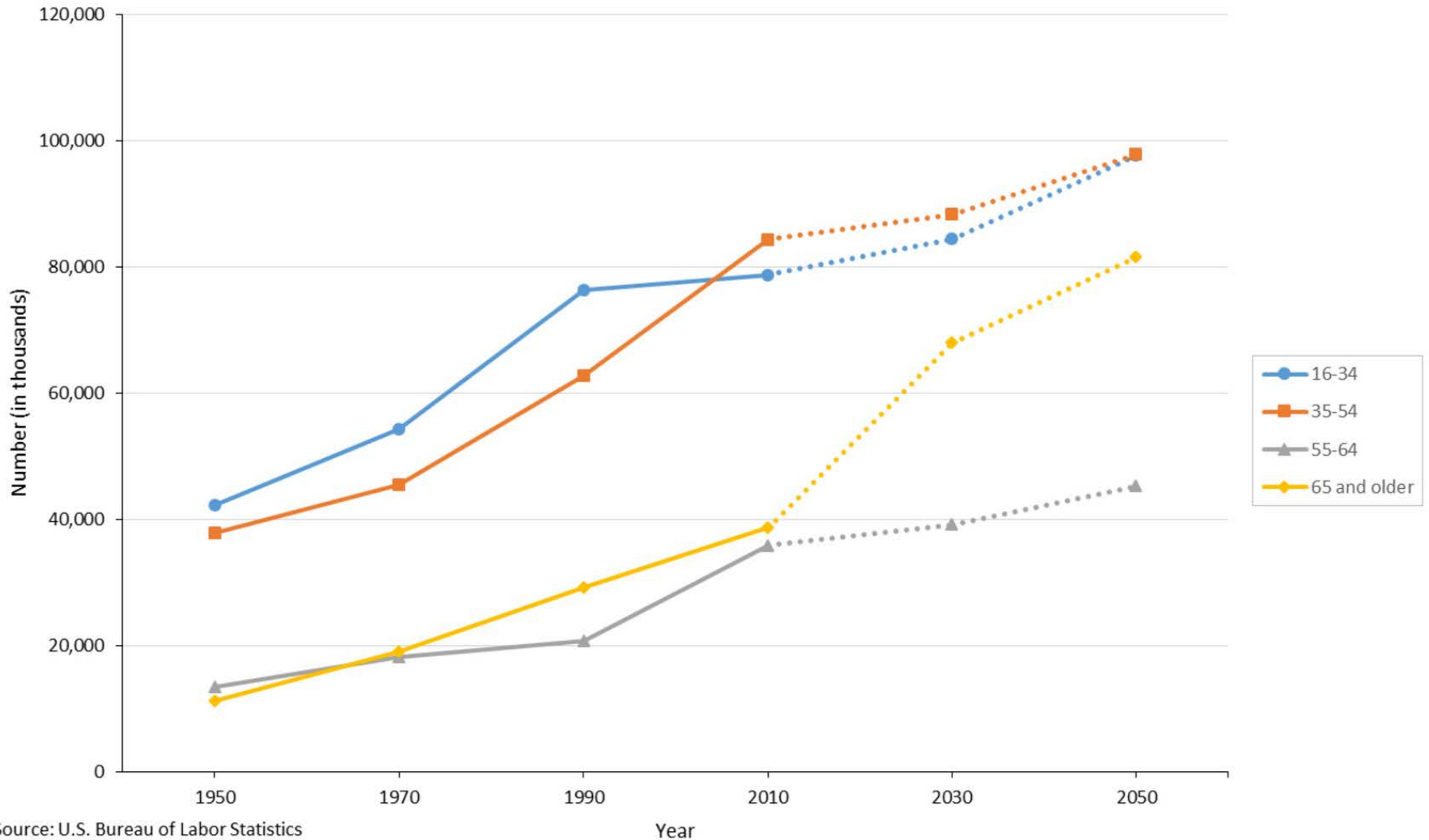
* The difference between manufacturing and all other industries is statistically significant ($p < .05$).

Note: Manufacturing $n = 253$; all other industries $n = 1,337$. Percentages may not total 100% due to rounding.

Source: Preparing for an Aging Workforce: Manufacturing Industry Report (SHRM, 2015)

#1 Uncertainties of Employers + Workforce Composition

U.S. Civilian noninstitutional population by age group, 1950-2010 and projected 2030-2050



Source: U.S. Bureau of Labor Statistics

#2: *Uncertainties of Retirement Waves (Pull vs Push)*

U.S. Nonretirees' Expected Retirement Age

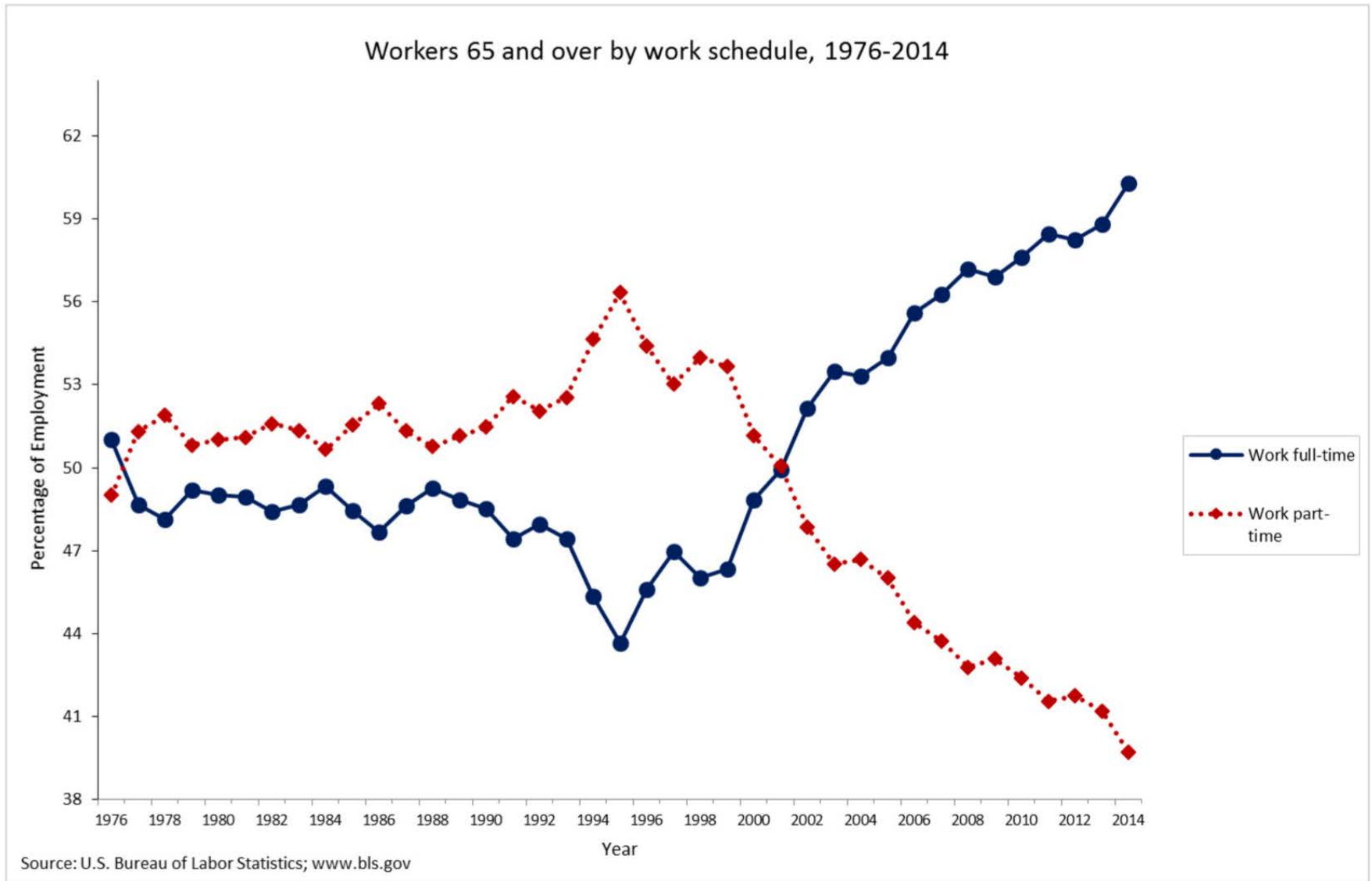
At what age do you expect to retire?

	U.S. nonretirees %
Will retire before age 62	23
Will retire between ages 62 and 67	38
Will retire at age 68 or older	31
Unsure	8

GALLUP, APRIL 6-10, 2016

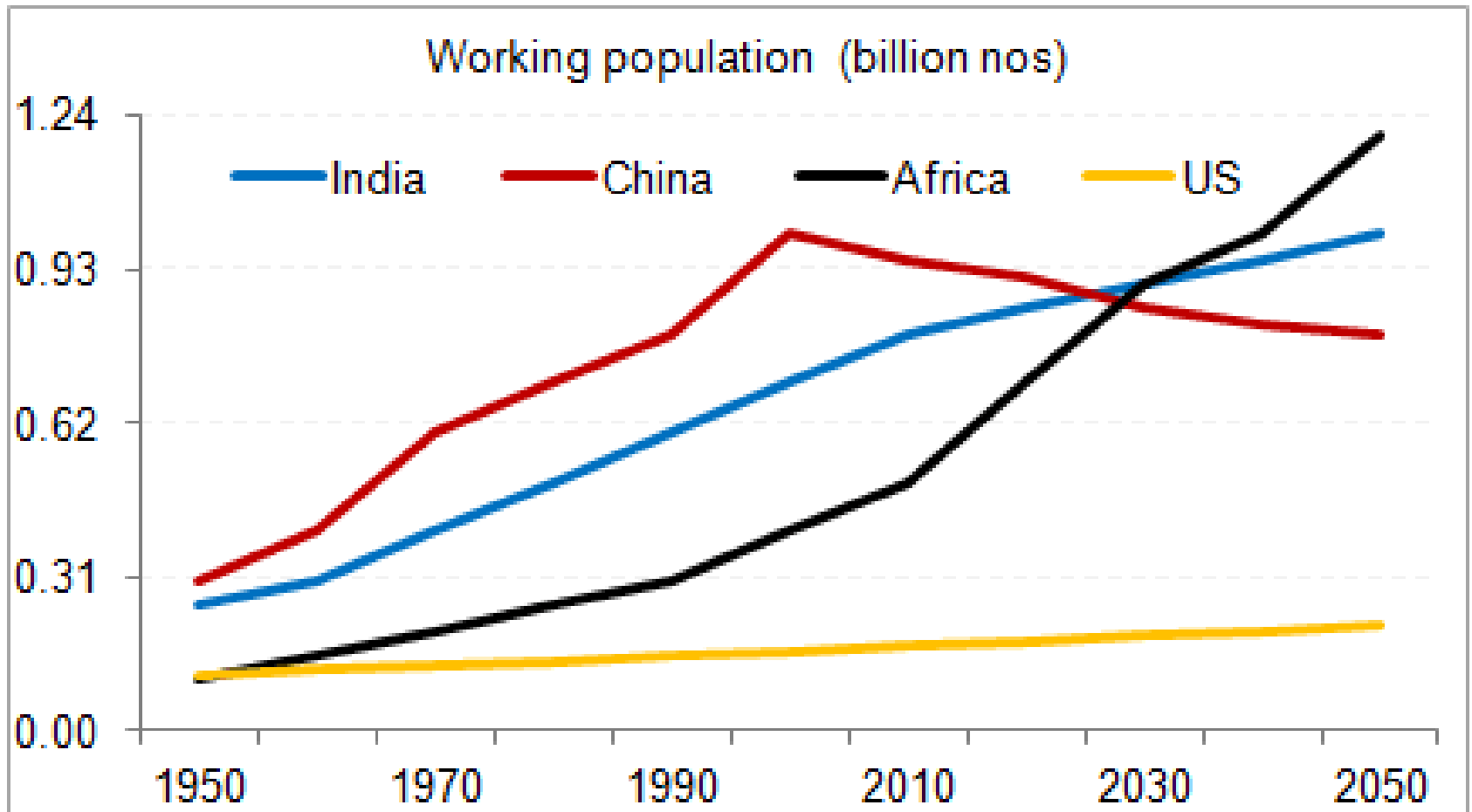
GALLUP®

#3: Uncertainties of Full-time, Part-time vs Gig

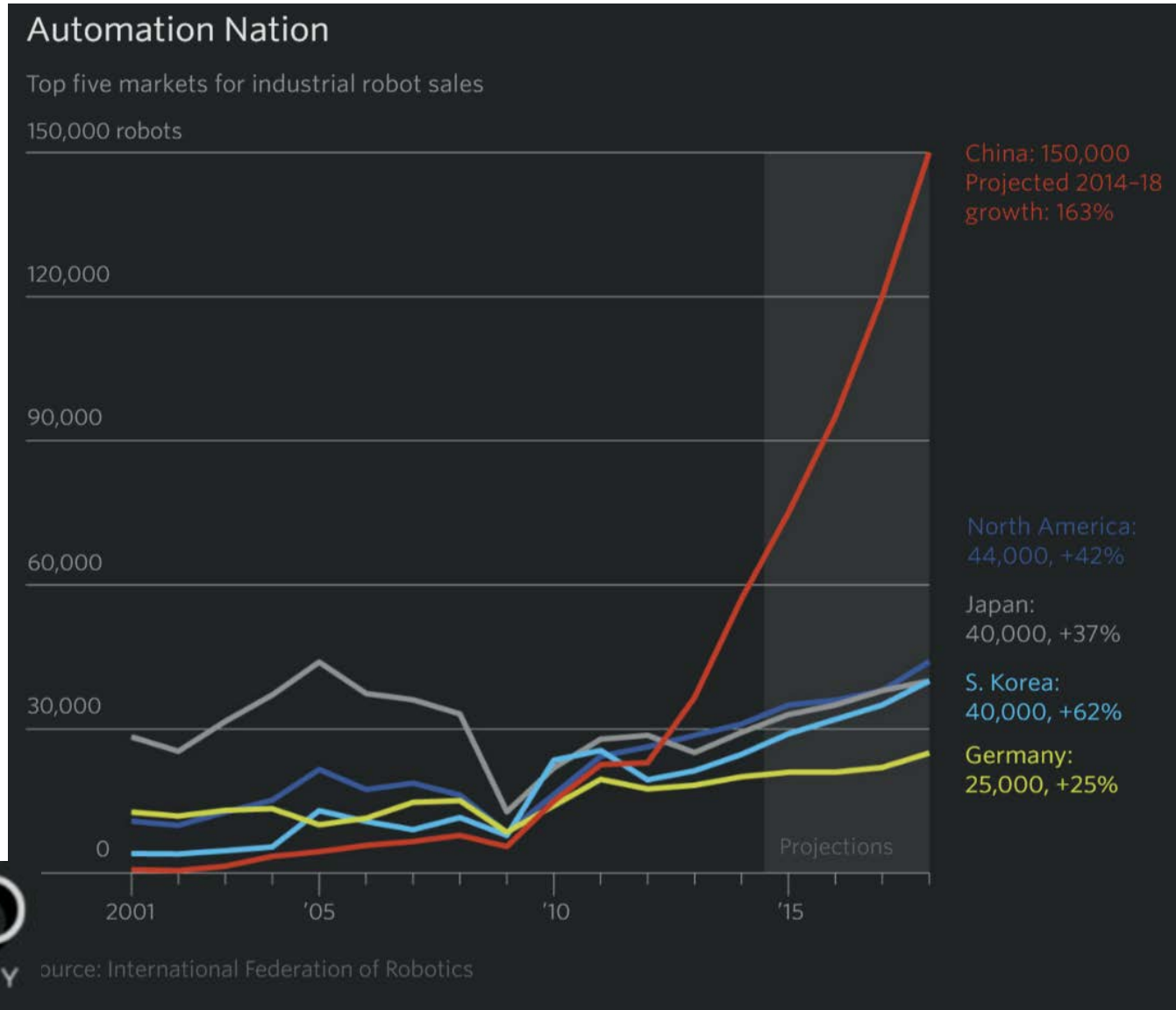


#4: *Uncertainties of Loyalty*

Will Trans-national Companies Seek Out Demographic Dividends?



#5: Uncertainties of Aging + Mfg Automation?



#6: Uncertainties of Global Events + Aging Electorate

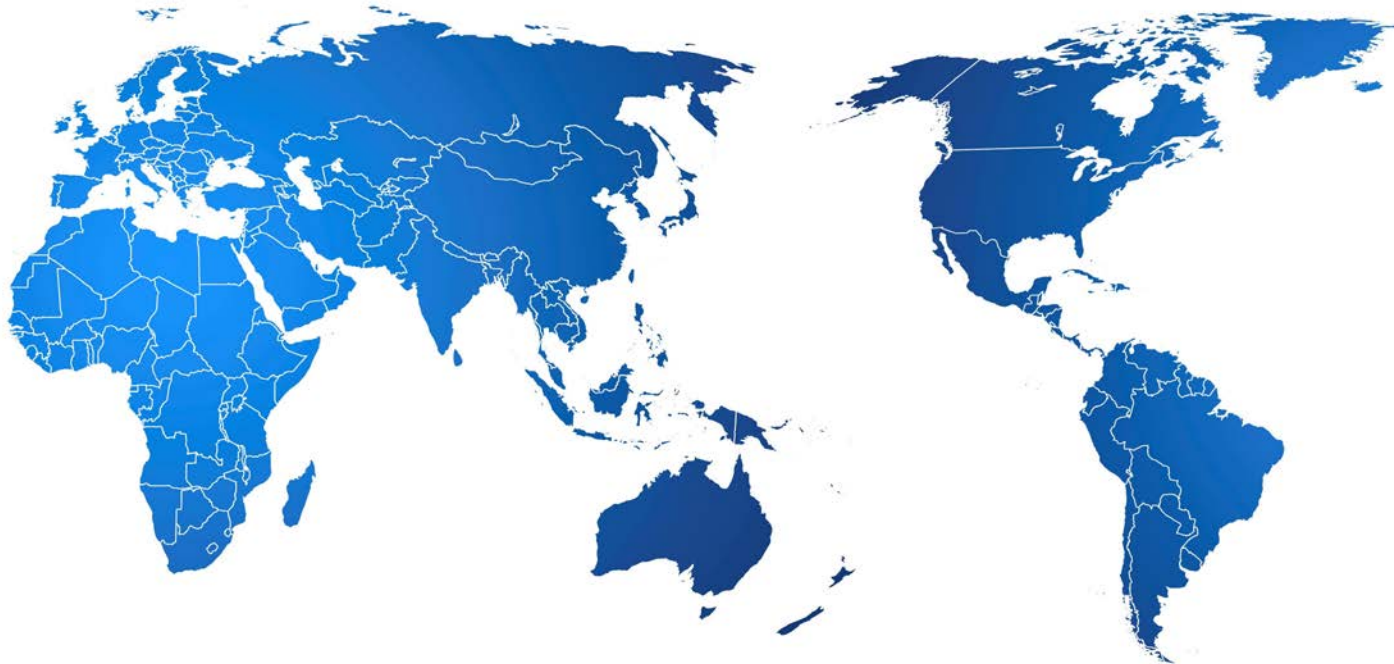
China Revolution?

**US Electorate
+ Safety Net?**

New Alliances?

South Asia + Sub-Saharan Africa

EU Dissolves?



Aging + HR Implications: Opportunities & Risks

Opportunities

- Gig Economy's *biggest market?* (*Part-irement*)
- Leveraging Loyalty and Experience
- Capturing upside of Universal Workspace Design with focus on Wellness-driven Productivity

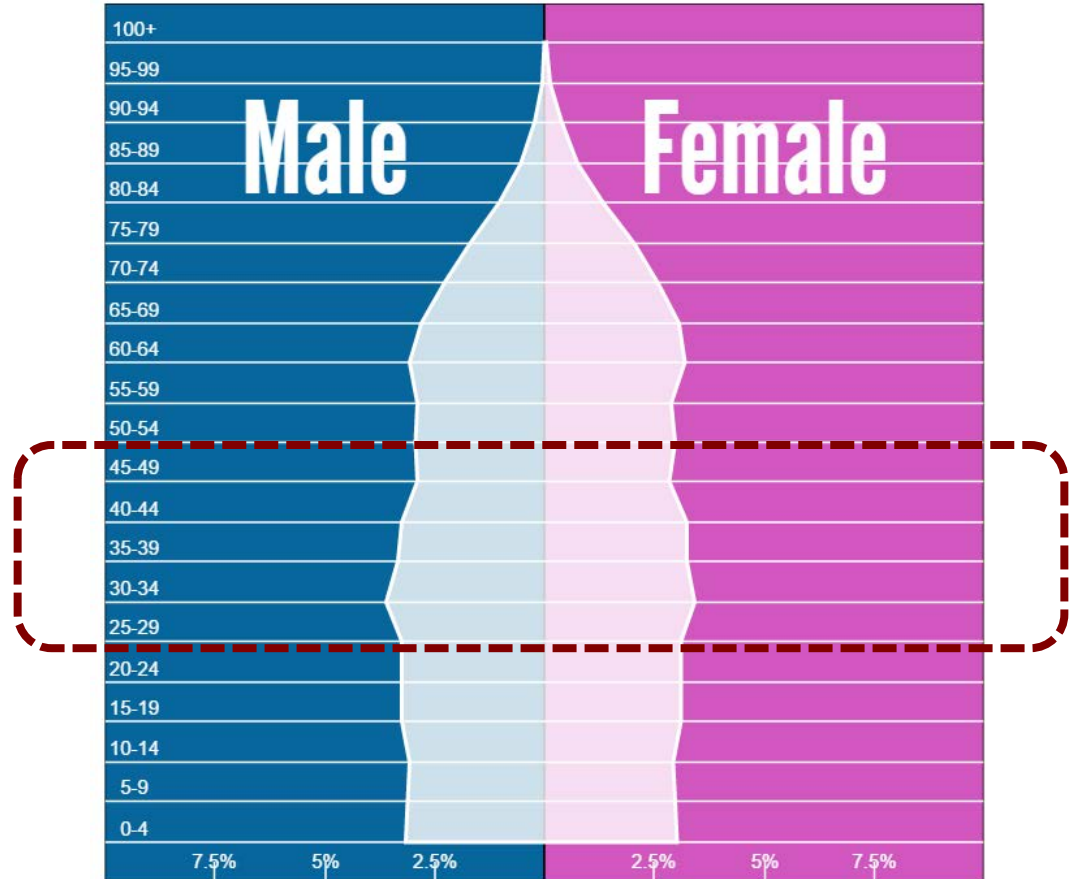
Risks

- Losses: Relationships, Experience, + Institutional Memory
- Delayed Retirement Slows Innovation
- Aligning Compensation + Benefits to New Reality
- Discrimination Issues
- Realistic benefits + compensation packages
(Limits of Phased Retirement)

United States of America 2025

Population: **345.084.000**

Millennials Dividend



#1 Where will they want to live?

Manufacturing Scenarios

Reshoring in Major Metros

Additive Mfg + Industrial Localization

Lure of Micropolitans

Lower cost + Spectrum of Talent

Rural Revival

Simple life + Access to Global Markets



#2 Who will they want to work for...?

Manufacturing Scenarios

Old School, No Problem

Locally Focused Company

Industrial Internet

Welcomes STEM-generation

Who Cares about Silicon Valley!

Constant Scramble

(Shrinking + shifting talent pools)



#3 How will they want to work...?

Manufacturing Scenarios

Old School, No Problem

Less Tech is the Best Tech

Modern Manufacturing

Digital Disruption is My Friend

Craft Culture = Industry

Low volume + Designer Culture



Millennials + HR: Exploring Nuances of Change

Opportunities

- Actively Building Local Pipelines & Career Readiness
- Capturing Generation of *Maker Culture*
- Letting Millennials Define Future of Manufacturing*
- Career Pathways (Apprenticeships to Leadership)*
- Company Culture and Brand & Social Impact

Risks

- Overcoming Perception of Industrial Careers
- Overcoming Geographic Challenges
- New Benefits (e.g. Childcare; Performance Support; Loans)
- Nature of Work

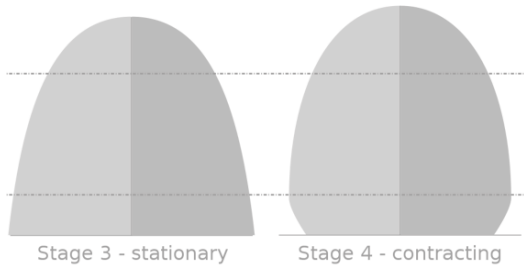
Workforce Implications of Aging Boomers + Millennials Rising:

Start

Stop

Continue

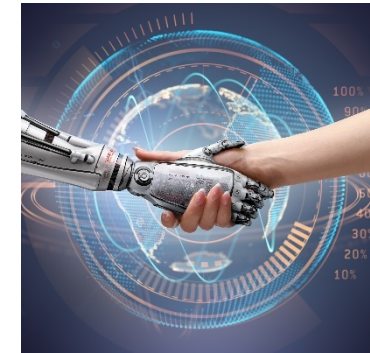




*Demographics
+ Workforce*



***Data-driven Workforce:
Training
+ Performance***



***AI-Driven
Workplace***

**The Creepy vs
Compelling Line of...**



**Data-driven
Workplace**

**Learning +
Performance Analytics**

**Working with A.I.
Intelligent Assistants**



Deloitte.

M MANUFACTURING
Institute

The skills gap in
U.S. manufacturing
2015 and beyond

The skills gap is widening

Over the next decade nearly 3 1/2 million manufacturing jobs will likely be needed and



The implications are significant

Every job in manufacturing creates another 2.5 new jobs in local goods and services.

For every \$1 invested in manufacturing, another \$1.37 in additional value is created in other sectors.



By 2025 the skills gap is expected to grow to **2 million**
In 2011, **600K** jobs were unfilled due to the skills gap

Figure 2: Skills in which manufacturing employees are most deficient



70%
technology/
computer skills



69%
problem
solving skills



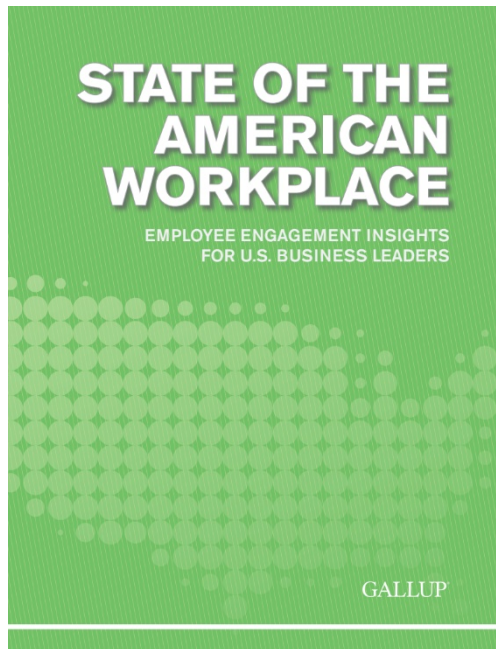
67%
basic technical
training



60%
math skills

Note: Percentage indicates the percentage of executives who did not opt for "Extremley sufficient" or "Sufficient"

How might the emphasis on a culture of learning + performance support improve engagement?



70% Workers Disengaged at work...

....disengagement costing the U.S. an estimated \$450 to \$550 billion annually.

Training Culture

- Put *inside* person
- Instructor-focused
- Event-based (Class)
- Centralized (Formal)
- Linear (Sequential)
- Delivery (Output)

Performance Review

- Purpose: Assess
- Weakness-focused
- Periodic (Annual)

Learning Culture

- *Grows out* of personal effort
- Learner-focused
- Continual / On-demand (*Chunks*)
- Decentralized (Hybrid)
- Non-linear (Contextual)
- Results (Outcomes/Impact)

Performance Support

- Purpose: Support (Perform)
- Growth-focused
- Continual / On-demand (*Chunks*)

Emerging L&D (Performance Support) Strategies

Micro Content



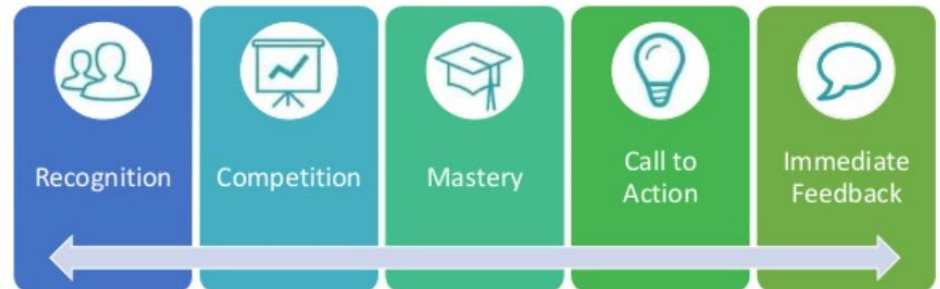
7 minute modules
vs
Two hour Training
Sessions

Gamification (Behavioral)



Gamification?

Using game elements to drive behavior, engagement:
communicate, feedback and coach to performance



Emerging L&D (Performance Support) Strategies

**Flip the
Training Classroom**



MOOCs based Content

coursera

U
UDACITY

edX

Early Days of Performance Analytics

Where do workers apply what we learn in training?



Classroom

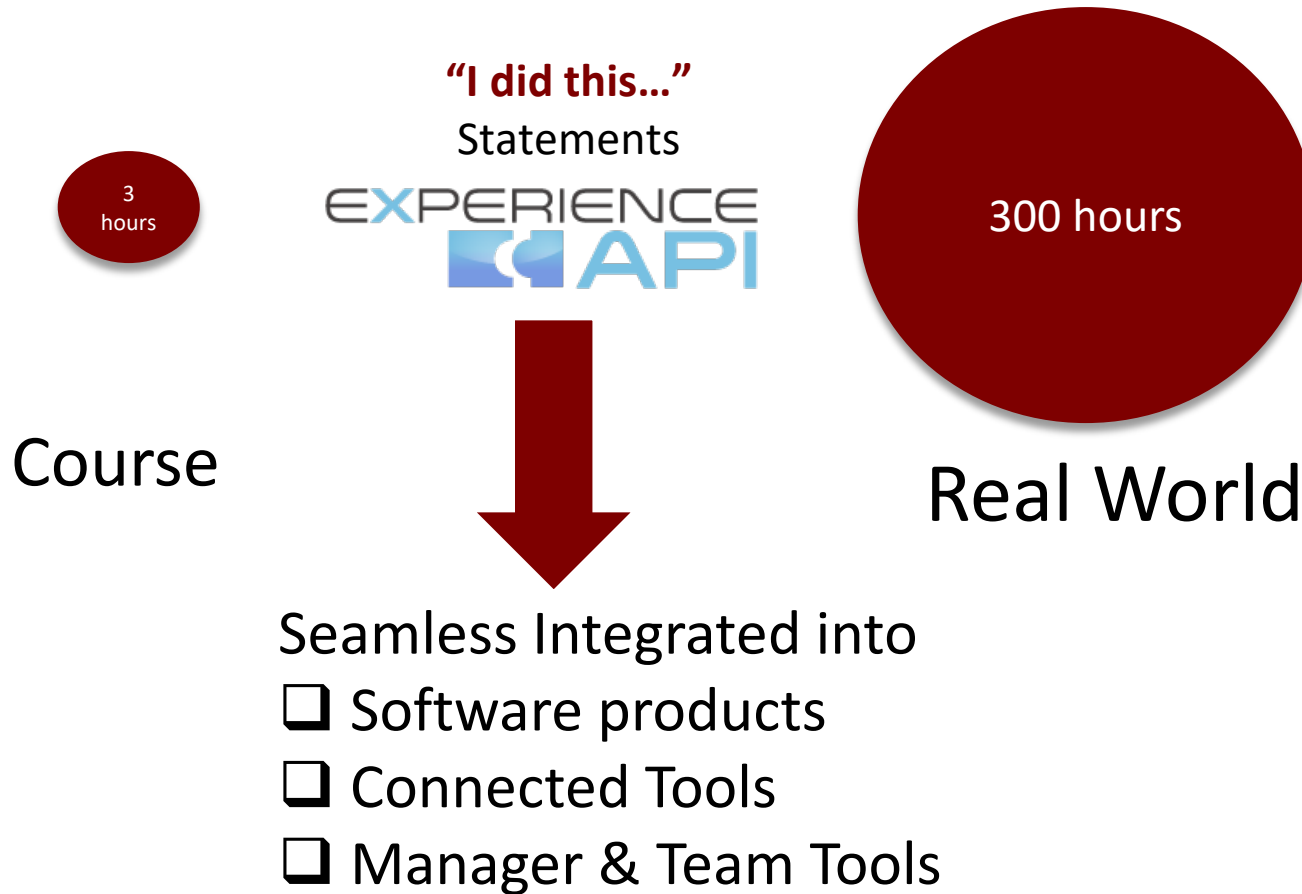


Real World

Our job is not to build training. It is to improve performance

Early Days of Performance Analytics

What if we could make connections between training to performance?



xAPI Performance Analytics driving Engagement



“I did this...” Statements

- Simone ***watched*** a Youtube video on Aging populations
- Simone ***completed*** a MOOC class on designing homes for aging populations
- Simone ***funded*** a Kickstarter project on home robotic assistant for seniors
- Simone ***followed*** MIT Aging Labs director Tom Coughlin on LinkedIn and Twitter
- Simone ***attended*** an MIT workshop on Aging in Place
- Simone ***wore*** an ‘aging suit’ while visiting the MIT Aging Lab
- Simone was ***mentored*** by Russell Jones, Aging Service Design Expert
- Simone ***wrote a blog post*** on aging in place & energy sector for APPA
- Simone ***wrote*** a proposal on new aging-in-place energy product-service concepts
- Simone ***presented*** a business plan to Board on business model
- Simone ***promoted*** to Head of Aging of Place solutions



Factory Experiences
I did this...

EXPERIENCE
 API

Situational Awareness View of Managers



Experience Streams

<Actor, Verb, Object>

"I did this"



Learning Record Store (LRS)

- Individual Control over Access to Learning Data

**Interventions: Self-directed Learning,
Performance Support, Training**

What we might do with xAPI Performance Analytics...



Managers + Employees

- Create a culture of continual learning
- Anticipate team capacity for addressing situational opportunities or challenges
- Reveal just-in-time opportunities to provide Performance Support
- Make connections between training + performance support to business outcomes

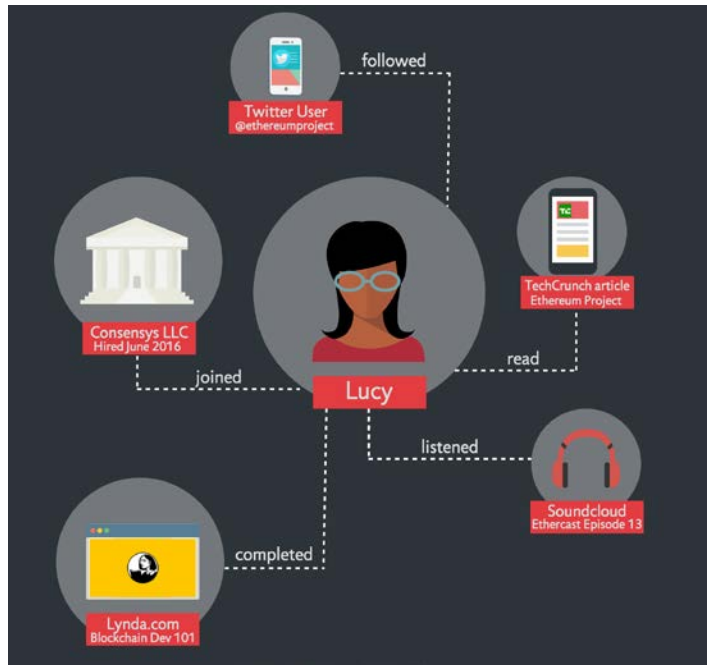
Slow Pace of Big Changes in Experience Analytics

Prescriptive Analytics Setting Stage for Experience Capture

CRUNCH NETWORK

Why LinkedIn should kill the résumé and replace it with the experience graph

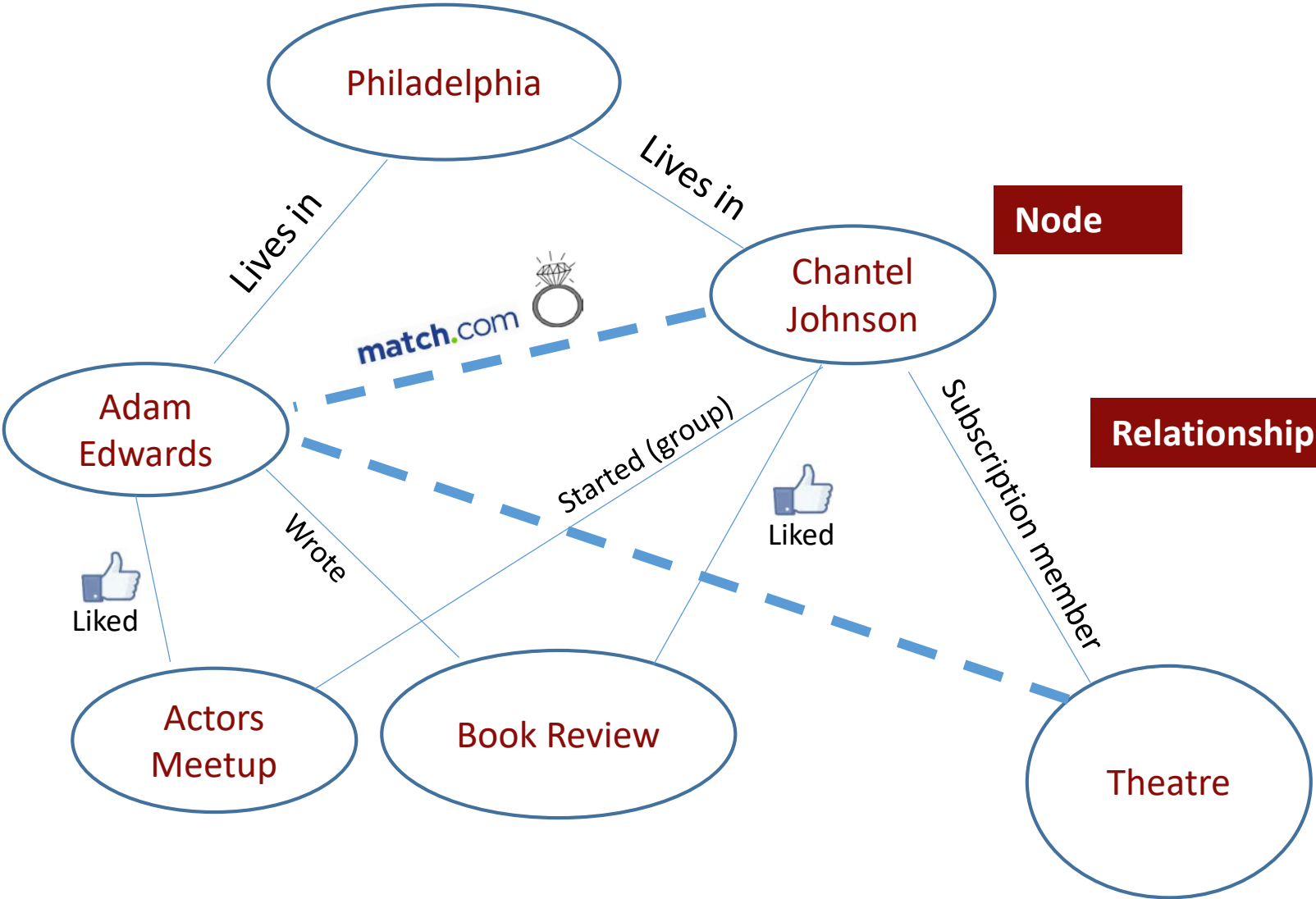
Posted Aug 14, 2016 by [Garry Golden \(@garrygolden\)](#)



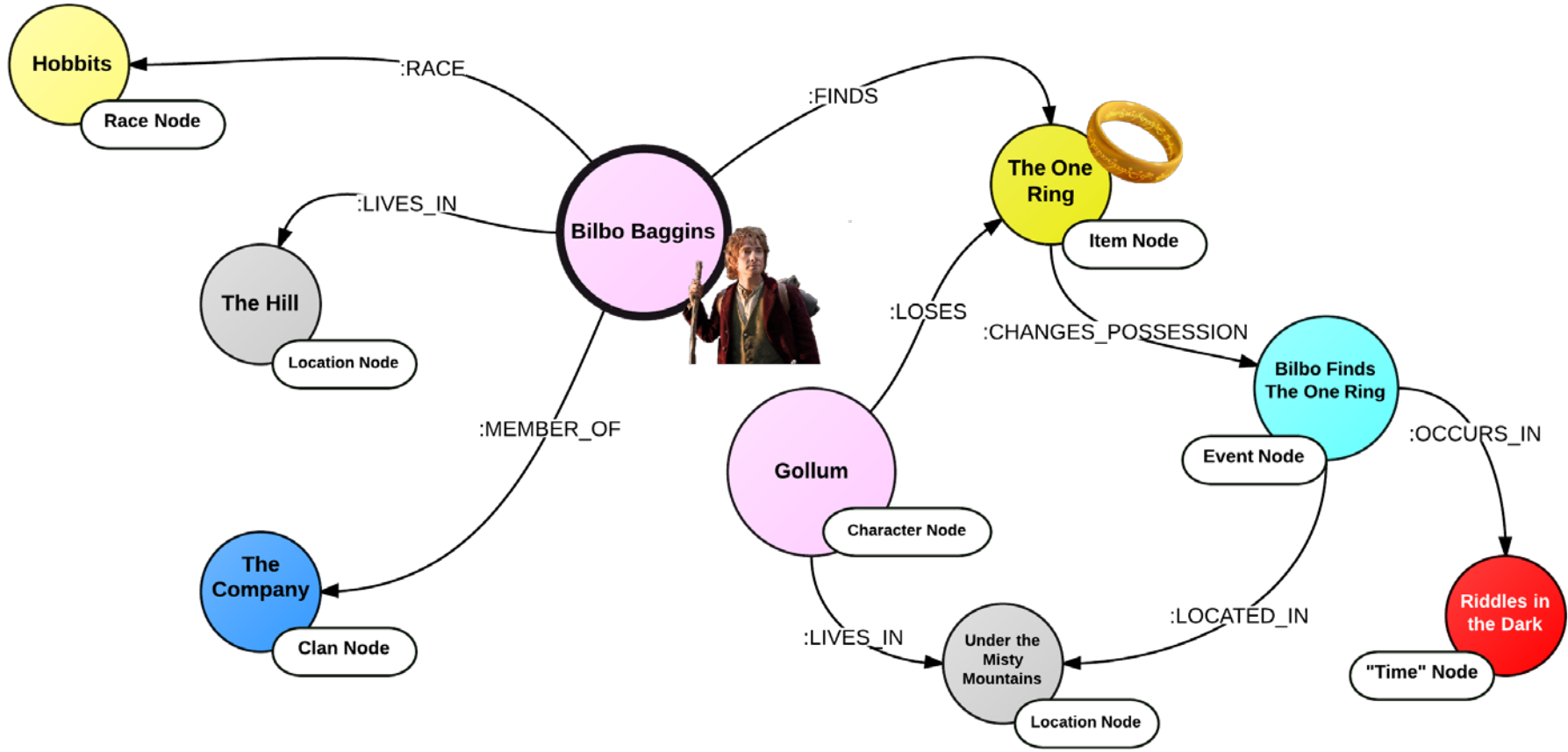
The experience graph could become a competitive advantage for students applying to college and job-seekers eager to share real-world data with potential employers.

EXPERIENCE
API

Graph Database = Understanding Relationships + Connections



Imagine an Employee Journey Captured in Graph Databases: Understanding Aggregate Context from On-boarding to L&D



Space Planning

Are closed offices right for our team?

Management time with staff has been linked to team engagement and goal clarity.

Do common areas promote unplanned communication?

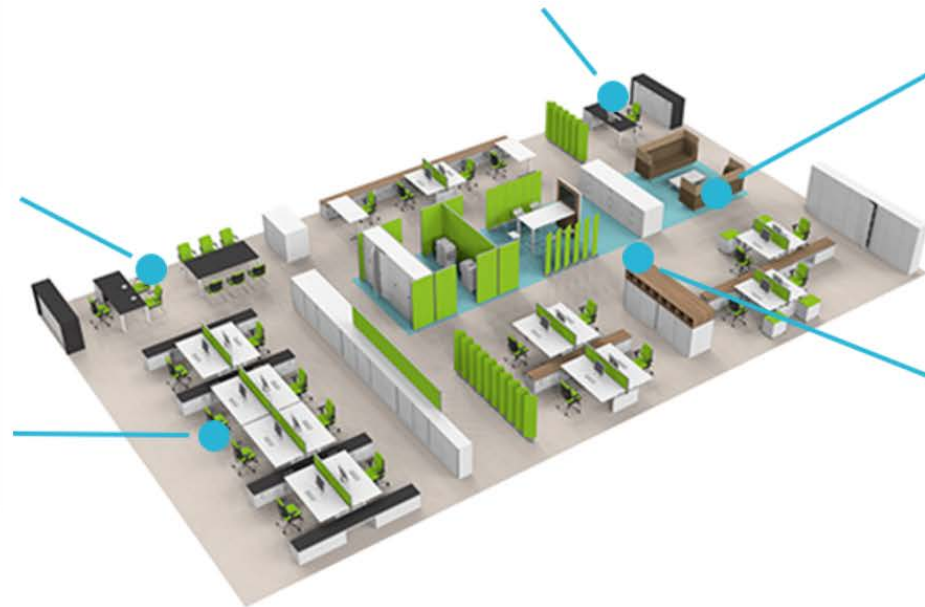
Casual interactions can impact performance and problem solving.

They increase exposure to diverse information.

Do we have the right mix of meeting space?

Designing spaces for break out meetings is crucial and cuts down on formal meetings.

It also increases team cohesion and helps to reduce risk to delivery.

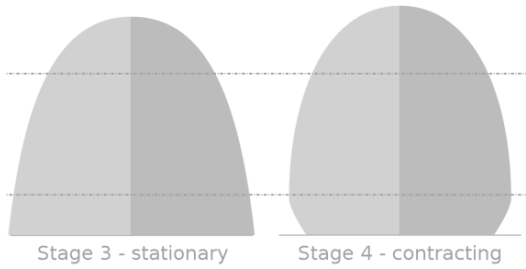


How do remote employees impact our business?

The proximity of teams that work together often will impact the speed of communication and delivery.

What is the right configuration for our work areas?

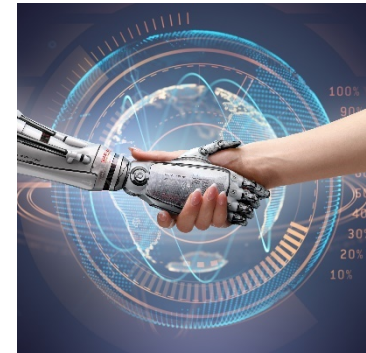
Learn what environment tends to increase knowledge transfer and prevent knowledge silos.



*Demographics
+ Workforce*



*Data-driven Workforce:
Training
+ Performance*



***AI-Driven
Workplace***

AI *Design for Behavior Change*
Why Software is Eating the World...

THE WALL STREET JOURNAL.

By **MARC ANDREESSEN**

August 20, 2011

Social Norms for the Anonymous-Access Web

1993




"On the Internet, nobody knows you're a dog."

**“On Facebook, 273 people know I’m a dog.
The rest can only see my limited profile.”**

Social Norms & the Social Web

2008





Everyone knows I'm working
on some personal growth
issues

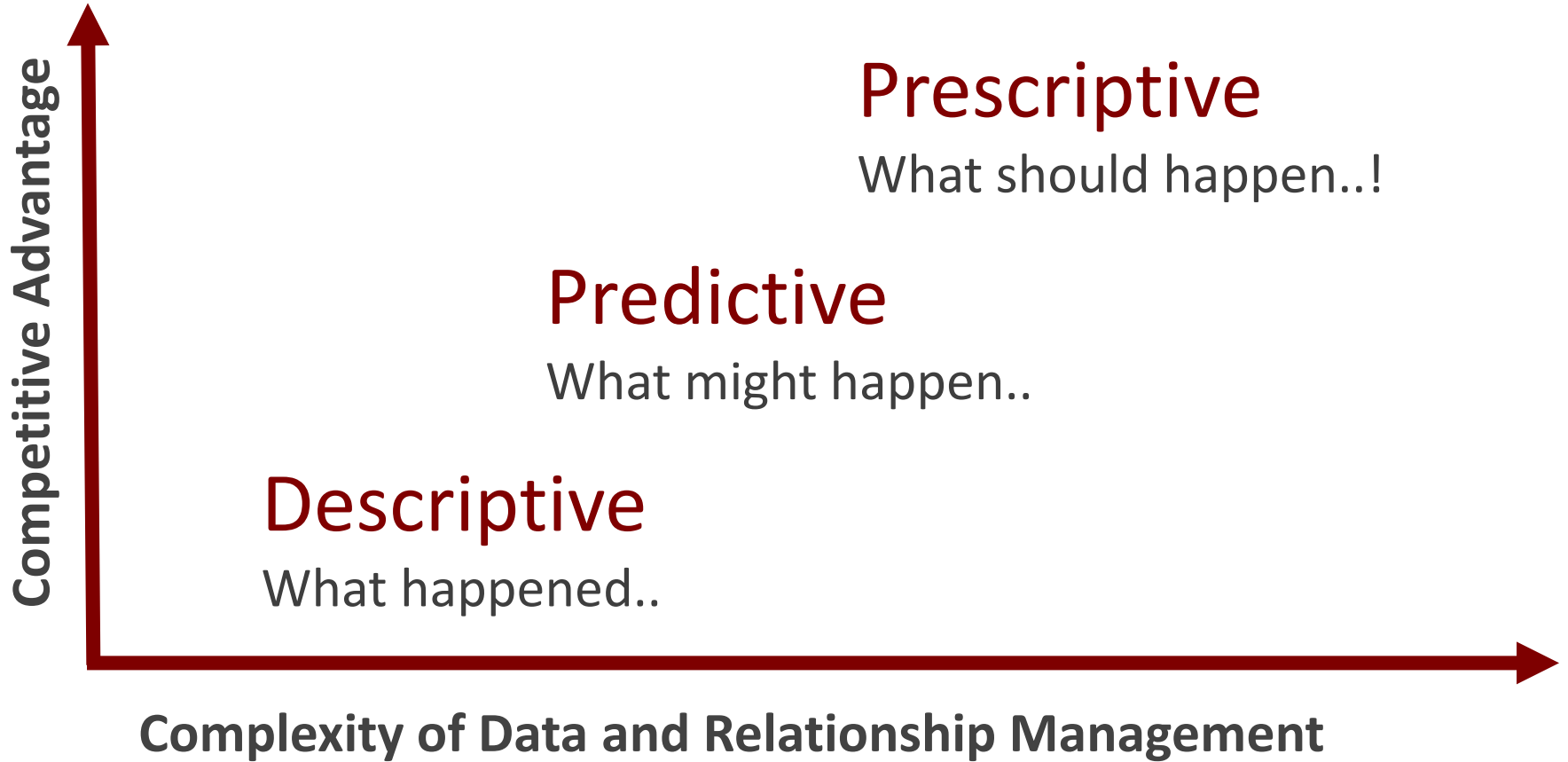
Assumption:
The web is becoming a platform
for managing outcomes &
personal behavior change.

Andreas Arden

- Knowledge—improving your memory and creating an effective schedule
- Productivity—reading, writing, thinking, and more
- Dog Training 101—how to train, sit, stand, stay, and more
- Behavior Problems—improving problem-solving, aggression training, and more

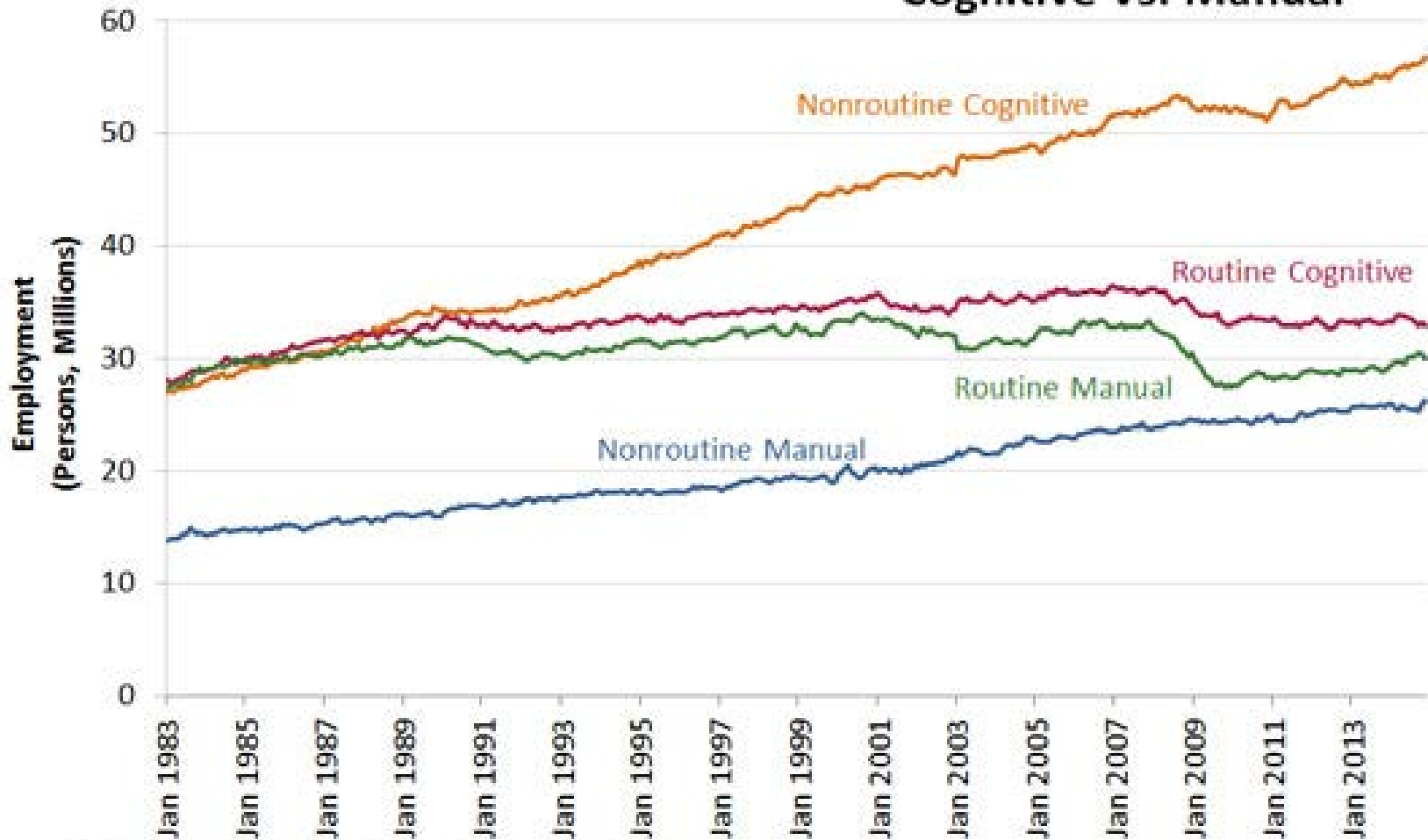
BARRON'S

Software Eating World = Advanced Analytics + AI Help to Guide Outcomes



Cognitive Jobs, Meet Cognitive Software

Jobs: Routine Vs. Nonroutine, Cognitive Vs. Manual



SOURCE: Current Population Survey and author's calculations.

The Shiny New Toy Problem of HR Analytics (and AI)

JUL 18, 2016 @ 08:09 PM

20,861 VIEWS



EDITOR'S PICK

Forbes

The HR Software Market Reinvents Itself



Josh Bersin
CONTRIBUTOR

*I analyze corporate HR,
talent management and
leadership.*

versus

HRD

Why do only 4% of CEOs value people data?

HR Lens on Advanced Analytics + AI Future



**Advanced
Analytics**



Chatbots



**Cognitive
Systems**



Cognitive Systems

Race to Build Intelligent Assistants



Hi, I'm Cortana.



IBM Watson

ARTIFICIAL
SOLUTIONS

next IT



MindMeld

amazon
echo

KASIST@

“...it is clear that the most powerful technology companies are investing immense resources to make virtual intelligent assistants ubiquitous before the end of the decade”

- Daniel Nadler, CEO of Kensho

Microsoft is betting that bots 'are the new apps'

MICROSOFT / 31 MARCH 16 / by MATTHEW REYNOLDS



Phase of Rolling Eyes at *Chatbots*

Facebook launches a bot platform for Messenger

Google follows Facebook into chatbots

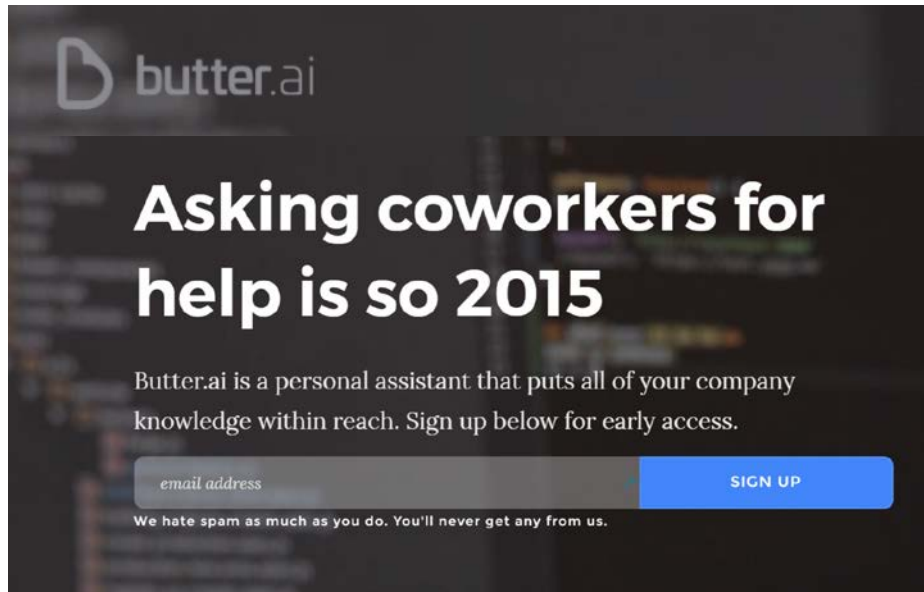
Published: May 19, 2016 8:43 a.m. ET

Cisco Partners with Gupshup to Boost Bot Ecosystem

Hype vs Hope of Chatbots

Specialized digital assistants and bots expected to generate over \$600 billion in revenue by 2020

talla 



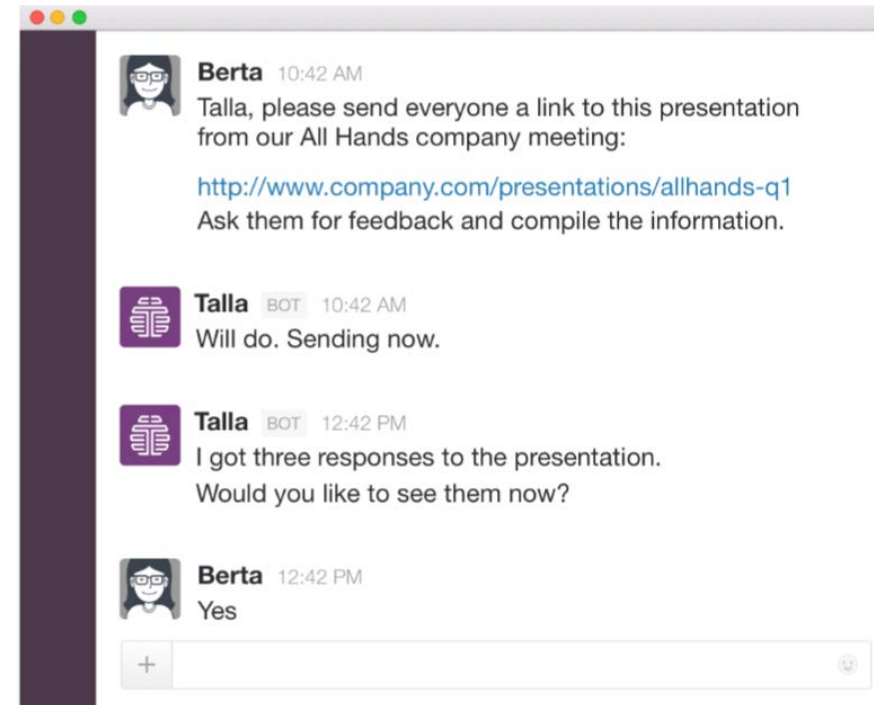
butter.ai

Asking coworkers for help is so 2015

Butter.ai is a personal assistant that puts all of your company knowledge within reach. Sign up below for early access.

[SIGN UP](#)

We hate spam as much as you do. You'll never get any from us.




Berta 10:42 AM
Talla, please send everyone a link to this presentation from our All Hands company meeting:
<http://www.company.com/presentations/allhands-q1>
Ask them for feedback and compile the information.

Talla BOT 10:42 AM
Will do. Sending now.

Talla BOT 12:42 PM
I got three responses to the presentation. Would you like to see them now?

Berta 12:42 PM
Yes



Engaging Managers on pilot experiences



[Polls](#) [How it works](#) [Pricing](#) [Help](#)

[Login](#)

Teach me to track and analyze team happiness|

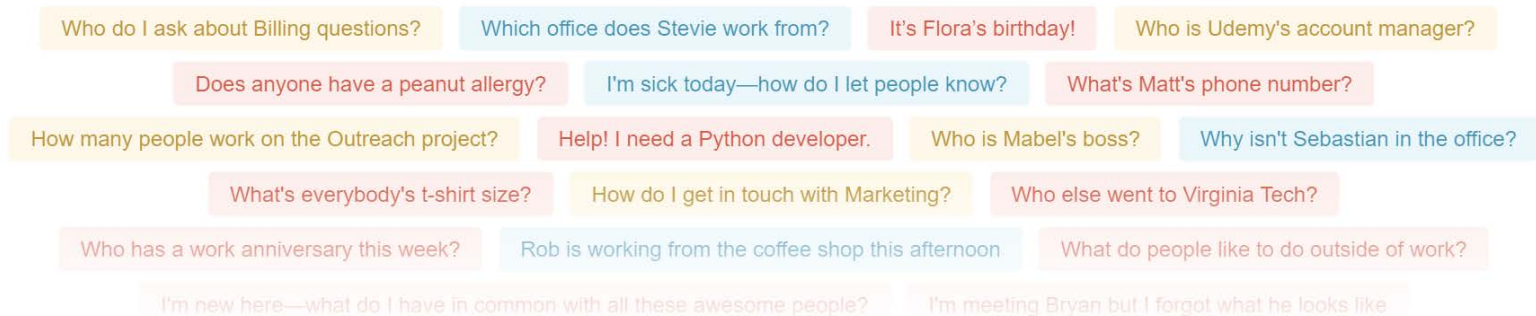
Automate data collection and analysis from your team with simple and recurring polls.

Add Polly to Slack 

Implications of Bots for:

- ❑ *How we structure data...*
- ❑ *How we understand gaps in understanding HR offerings and organizational issues*
- ❑ *How we maintain human-ness of HR & workplace experiences as we navigate the creepy vs compelling line*

Your team has questions—Pingboard has answers



Who's who?

Keep connected with your Employee Directory: people data, powerful search, and a beautiful app.



Who does what?

Dynamic org charts: create, share, and browse your always-up-to-date reporting structure.



Who's out?

Going to be out of the office? The Team Calendar lets you share statuses with your team.

Hype vs Hope: Cognitive Intelligent Assistants

2011-2014: Decision Support (Proof of Concept)

Healthcare

Helping doctors identify treatment options



MEMORIAL SLOAN-KETTERING
CANCER CENTER

Finance

Helping planners recommend better investments



Retail

Helping retailers transform customer relationships



Public Sector

Helping government help its citizens



Accelerated Research

Helping researchers find info faster



Home
What is Watson?
Implement Watson

Build with Watson
The Watson Ecosystem
Mobile Developer Challenge

About Us
Our Headquarters
Our Team
Careers
Academic Partnerships



Email IBM



Call 1-877-426-3774
Priority code: 109HF03W



Tweet us your questions



Like us



2015: Watson in the Cloud (Cognitive-Apps-as-Service)



Slow Pace of Fast Change: 2016 – 2026

How might HR anticipate and lead culture change in a world where humans + learning machines drive collaboration, innovation and productivity?

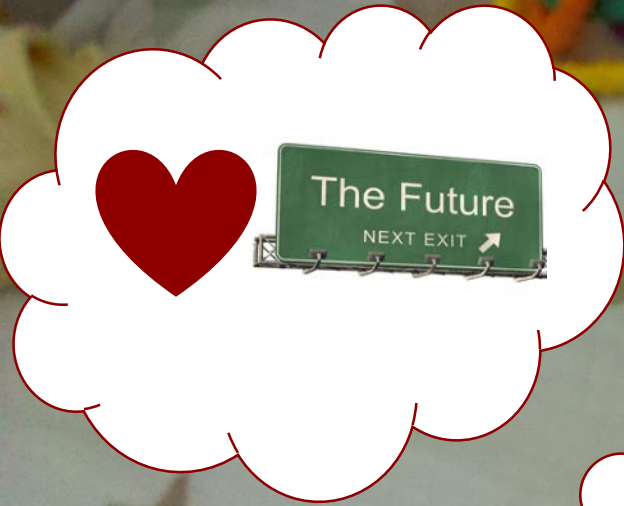


- Hiring Strategy
- Workforce Planning
- L&D for Age of Augmented Work
- Rethinking the Role of Managers
- Ensuring Data + Privacy Controls
- Preserving Pride in Work
- Best Arena for Proof of Concept and Pilot

I don't
like the
future...

 #Never_Garry_the_Futurist





Every day I make an effort to go toward
what I don't understand.
Yo-Yo Ma

***Workforce Implications of Data-driven Innovations:
People & Performance Analytics + AI Amplifying Intelligence***

Start

Stop

Continue



10 Minutes





*More or Less?
Foresight 101*



Drivers of Change



***Trend Card Ideation
Foresight Culture***

End



Foresight as *Front-End* of Innovation and Growth Strategies



Forecast-based Thinking:

- Confidence in assumptions
- *Stable marketplace/culture*
- *Focus on 'Prediction'*
(*What should happen*)

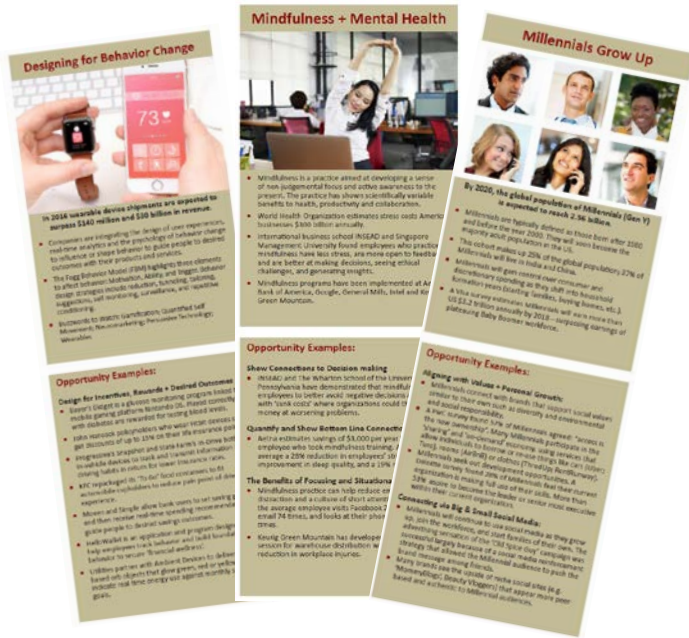


Scenario-based Thinking:

- Unsure of dominant assumptions
- Markets shaped by uncertainty
- Focus on 'Anticipation' ('could happen')
- Manage uncertainty of plausible outcomes
- Focus on continual monitoring of change

Activity: Trend Cards

Output: Generate Ideas that Solve Problems + Grow Business



Alternative Constraint Layers

Fictional Event Cards:

- New Laws + Regulations
- New Competitors
- New Internal Rules
- New Leadership
- Disruptive Wildcards

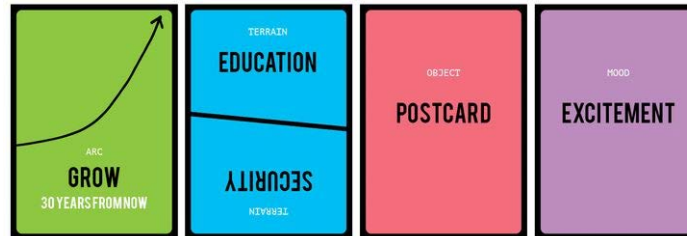
Long Game: Best Design Constraints for Dover focused Trend Deck



ARUP: Drivers of Change



Arc = Grow, 30 years from now
Terrain = Education
Object = Postcard
Mood = Excitement



OCAD: The Thing from the Future

Trend Cards

Data-driven Innovation



Designing for Behavior Change



Social Inclusion: Society as Stakeholder



Millennials Grow Up



Natural Language Intelligent Assistants



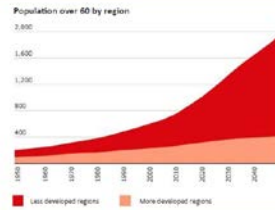
The "She-Conomy" Goes Global



Blockchain Applications



Aging Populations



Evolution of Mobile Life



Mindfulness + Mental Health



People Analytics



Next-11 Emerging Economies



Rise of Cities + Urban Lifestyles



Consumerization



Internet of Things (IoT)



Trend Cards

Millennials Grow Up



Internet of Things (IoT)



People Analytics

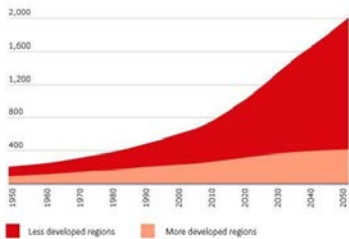


Natural Language Intelligent Assistants



Aging Populations

Population over 60 by region



Designing for Behavior Change



Data-driven Innovation



Next-11 Emerging Economies



Activity: Trend Cards

Output: Generate Ideas that Solve Problems + Grow Business

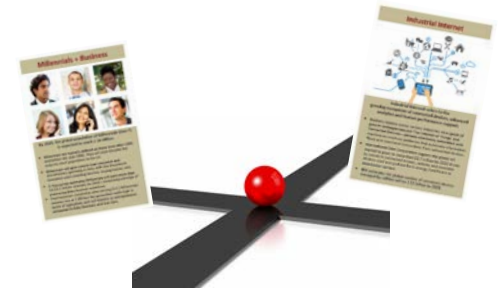


Trend Cards

Two Activity Strategies

1) Breadth via Events + Intersections of Change

2) Focus + Depth on Leveraging Single Trend



	Team 1	Team 2	Team 3
Horizon 1			
Horizon 2			

Alt Version: Focus + Depth on Single Driver of Change



Two Trends, Two Horizons

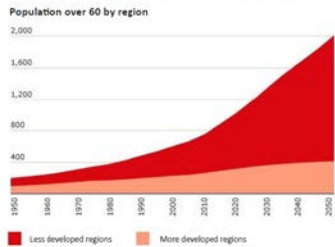
	Team 1	Team 2	Team 3
Horizon 1			
Horizon 2			

Facilitation Notes:

- 1) Distribute set of 5-6 trend card to small teams
- 2) Ask to discuss implications and vote on most important trend over two time horizons (Now-18 months; Beyond 3 years). They vote using trend image placards; placed on matrix table (above)
- 3) Whole room discussion on voting results (e.g. shared assumptions; outliers; horizon learning curves)
- 4) Teams return to table with task to pick one trend (from their choices or new trend). Follow ideation process for generating growth strategies

Opportunities & Constraints Shaped by Intersections of Change

Aging Populations



Designing for Behavior Change



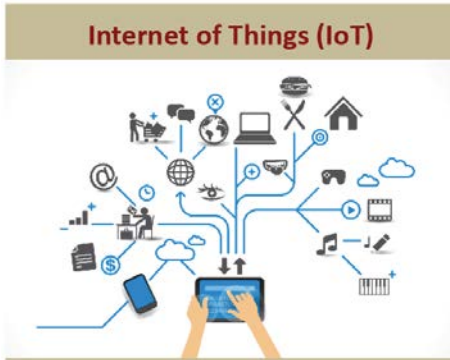
Natural Language Intelligent Assistants



Millennials Grow Up



Internet of Things (IoT)

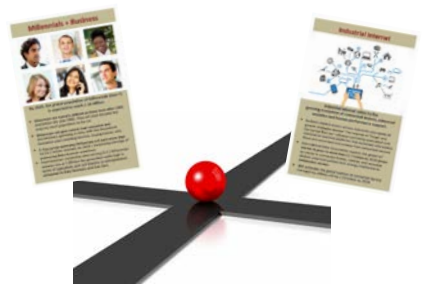


People Analytics

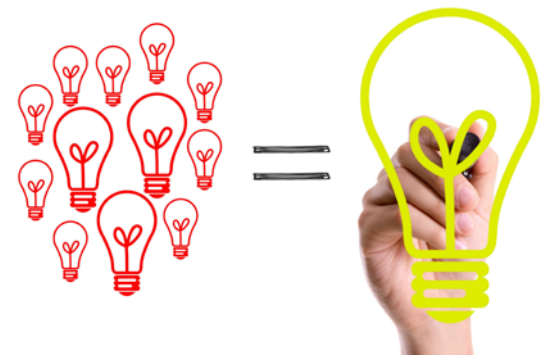


Activity: Trend Card Poker

Output: Generate Growth Strategies @ Intersection of Change



Discuss
Implications



Generate Lots of Ideas
then Select One Path



Business Idea
Shark Tank

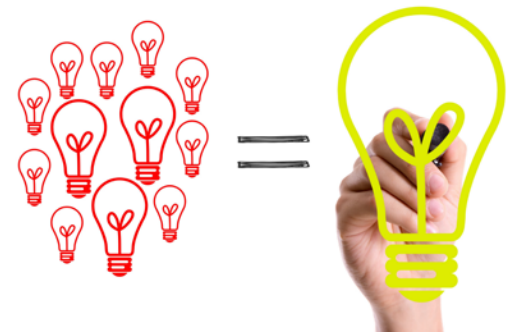
20 minutes

1. Discuss Broad Implications Set of Trends

Take Mental Leap: Dover 2020

2. Innovations at Intersection of Change

List Ideas that Solve Problems
+ Helps to Grow Your Business
(No debating...Write...)



Generate Lots of Ideas

5 minutes

List Ideas that will
Get You...

FIRE

10 minutes

- 1. Select one (1) Breakthrough Idea for a Dover Manufacturing Environment in 2020**
- 2. Create 'Shark Tank' Pitch on Business Idea**
 - Name Idea
 - Draw It...
 - Prepare Your 90 Second Pitch



90 Second Pitch



Direction A
Scenario Name





*More or Less?
Foresight 101*



Drivers of Change



Foresight Culture



Step # 1

Create a Healthy Sense of Urgency & Culture Aligned Around Anticipation

On the Plateau 'Managing the Decline'

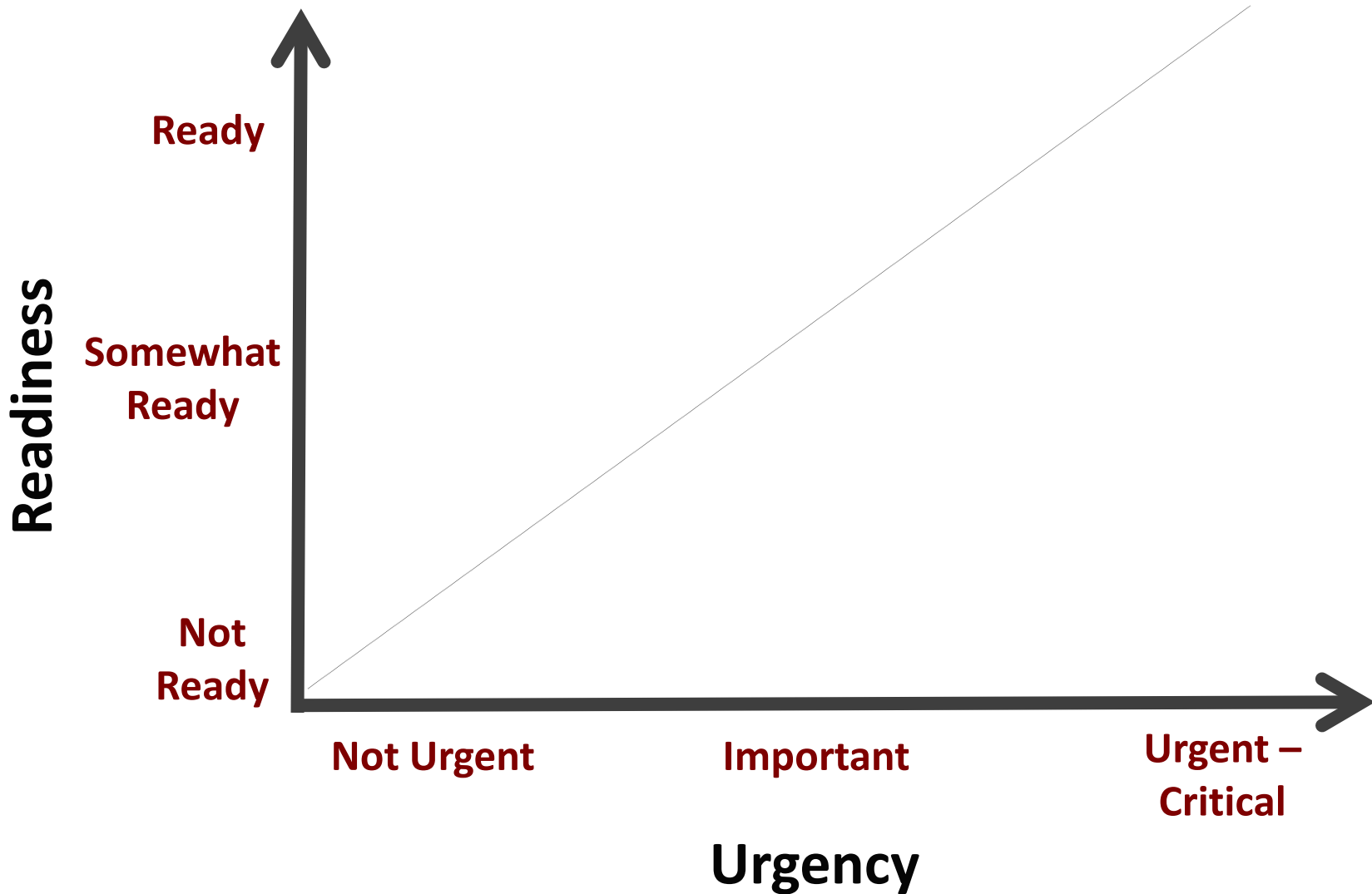
- Incumbent mindset
- Incremental Improvement
- Fear, Uncertainty, Doubt & Denial

Big Bets, Small Steps

- Entrepreneurial mindset
- *Prototyping*
Transformative Change
- *Failing Forward*

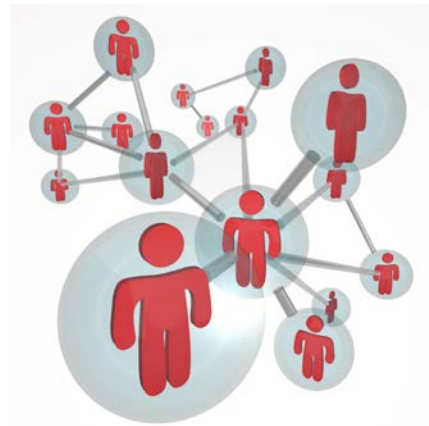
Step #2:

Take a Pulse Check on Emerging Trends vs Organizational Appetite



Step #3

Start a Signals Team: Follow Those Who Imagine Radical Change



Graph Analytics
Connected Data



Neuro Science
+ Behavior Change

Learning & Development
xAPI "I did this..."

Step #4

Find the Right 'Killer Questions' to Brainstorm Ideas

Following the success of HP's Chief Innovation Officer Phil McKinney, generate a weekly 'Killer Question' email message or 'Twitter' conversation that spurs conversation about the future of HR, L&D and the Manufacturing Workplace.

What is an HR policy or program that does not exist today but in five years will be our most impactful effort within the organization?

What skills set will be most in demand in five years that we do not currently address in formal training programs?

**What do we need to unlearn?
Biggest Risk...?
Biggest Opportunity...?
Bridges to future...?**

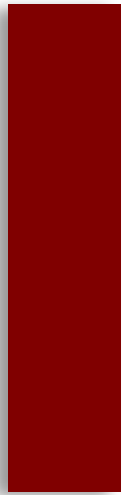


Garry Golden (Two Rs)
garrygolden@gmail.com

PDF + Resources
garrygolden.com/Nov8

Manufacturing Sector Careers

Skill Sets + Mindsets for the Future



“I” Shaped

Success via Specialization



“T” Shaped

Success via Many Paths

I-shaped Approach to Career in Advanced Manufacturing

Depth of Subject Expertise

Encouraging Depth of Skills that...

- Are in demand
- Looks great on a resume
- Industry or domain-specific
- Shows discipline + commitment

T-shaped Approach to Career in Advanced Manufacturing

Broad set of Skill Sets & Mindsets

**Depth of Subject
Expertise**

Encouraging Breadth of Skills that...

- Appeal to organizations hiring *learners*
- Embraces curiosity amidst uncertainty
- Shows desire to integrate solutions

What might our list of T-Shaped Skill Sets + Mindsets look like for a new hire in 2020?

Broad set of Skill Sets & Mindsets

Depth of Subject Expertise

- Service/Experience Design
- Data Science
- Design Thinking
- Visual Communication
- Ethnography
- New Digital Literacies
(*e.g. Working with A.I.*)
- Leadership
- Values / Ethics
- Communication (Storytelling)
- Entrepreneurship
- Behavioral Economics
- Sociology / Demographics
- Design-Manufacturing