

# Wo+men in Digital Services

*Success trends for raising female profiles and accomplishment rates across information technology digital services practices.*

November 6<sup>th</sup> 2018

# Key topics today

- Introduction
- Developing Strategy for Corporate Diversity
- Attracting Diversity in STEM
- Emerging Skills in the Diverse, Digital Economy
- Mainstreaming marginalized women for the Digital Economy
- Retaining Diverse Population in STEM
- Special Insight: Women Entrepreneurs
- Wrap-Up

# Panel Introductions



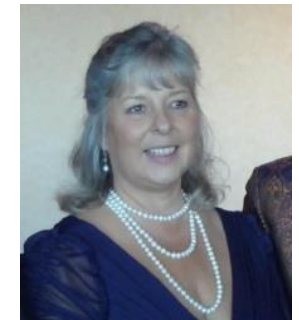
**Julie Ameen**  
Head of Public Sector  
CGI Sweden



**Anders Peter Kierbye Johansen**  
Global R&D HR Director &  
Managing Director  
Unity Technologies Denmark



**Camilla Runberg**  
Researcher at KTH, Royal  
Institute of Technology  
Entrepreneur and founder of  
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**Tamara Shoemaker**  
Director for Center for Cyber Security &  
Intel Studies  
University of Detroit Mercy USA



**Sylvie Albert**  
Dean of the Faculty of Business and  
Economics  
University of Winnipeg Canada



**Chetan Sharma**  
Founder & CEO  
Datamation Group India



**Samia Melhem**  
Chair, eDevelopment Group Information &  
Communication Technologies Sector Unit  
World Bank Group USA



**Irene Toporkoff**  
Co-Founder & Managing Director  
Worldcrunch France

# Introduction

From gender  
equality to  
diversity

Leadership

Focus

Culture

Business value

It is not what  
you say but  
what you do



Julie Améen

# Let's collaborate: Mentimeter

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Have you used mentimeter before?

CGI

0%  
Yes

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No





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# Fix the Destination

- **Our Mission drive our company**  
*We believe the world is a better place with more content creators*
- **Our values organize our behaviors**  
*A key principle in our company is that “Every Perspective Matters”*
- **Getting more perspective into digital services**  
*First, we need to “fix the Destination”*



Anders Peter  
Kierbye Johansen



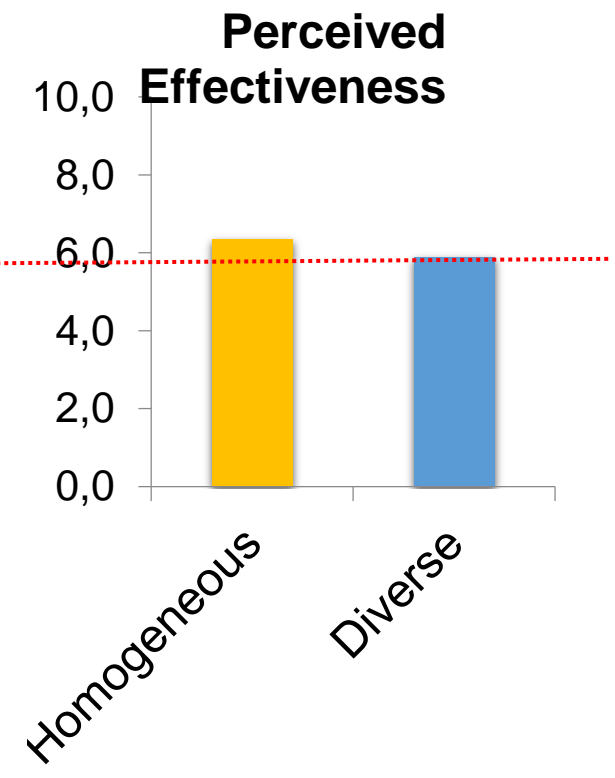
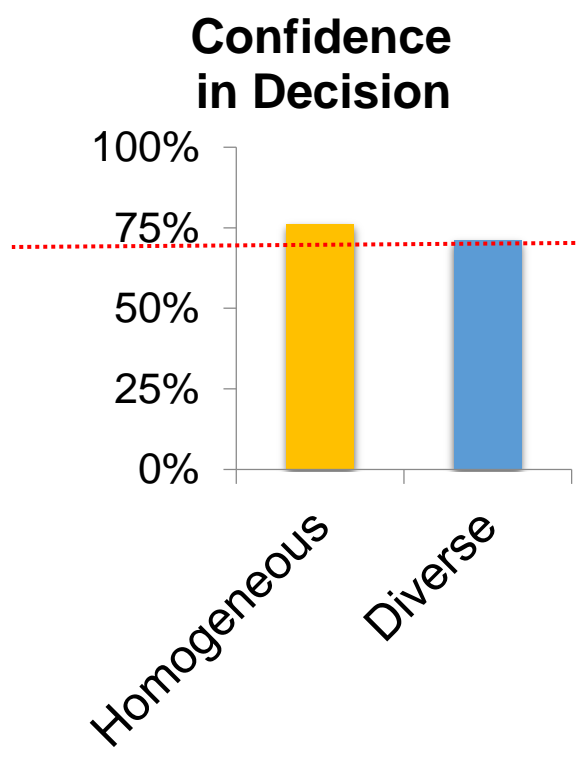
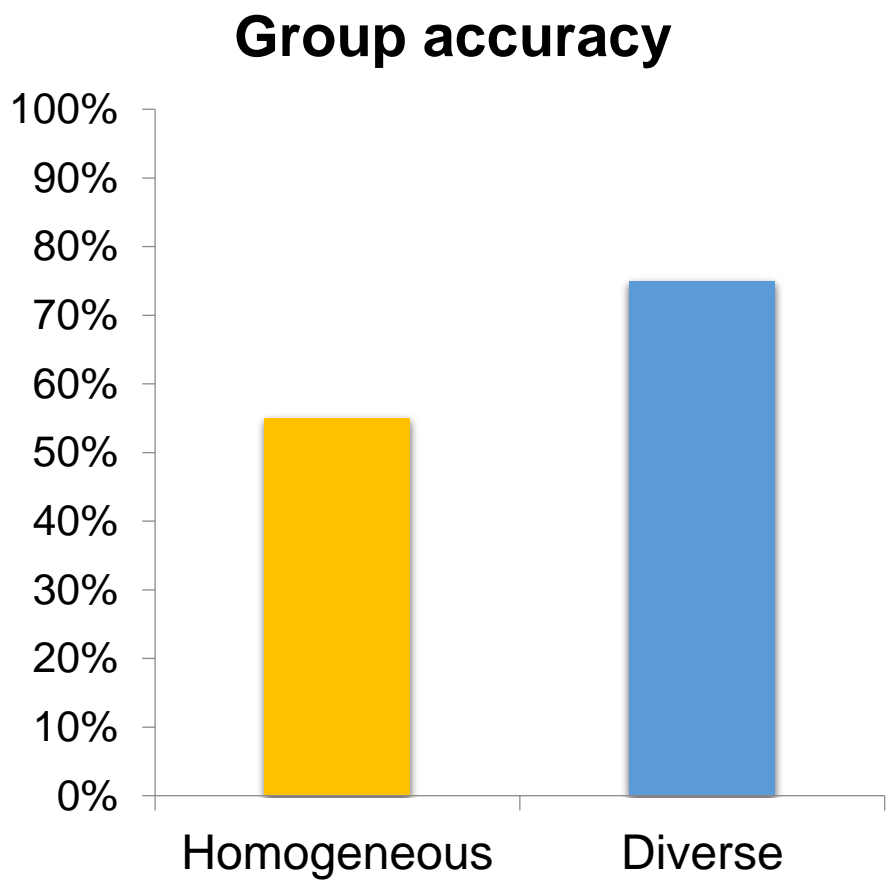
# Developing Strategy for Corporate Diversity

Aligning business strategy with gender diversity targets



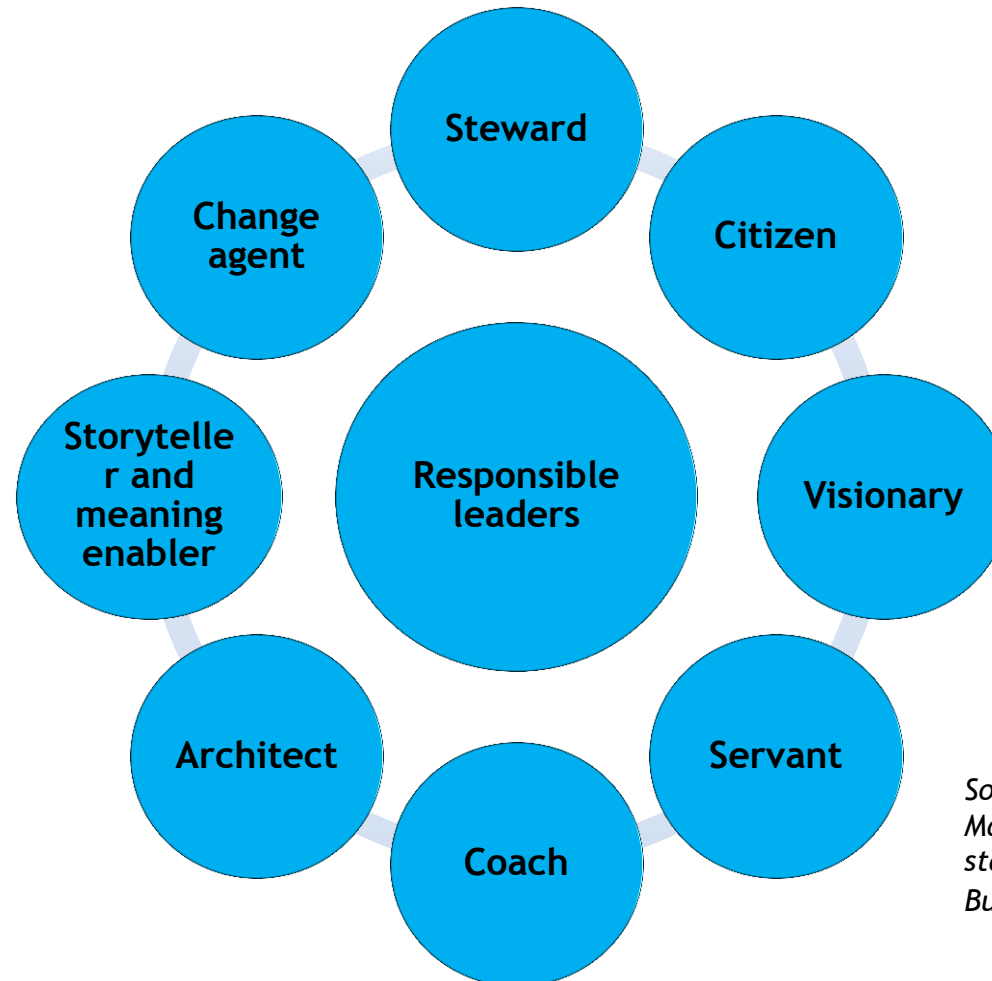
even —  
odds —

# Diverse Teams Outperform... ... even though they do not think so themselves



# Diversity in Leadership

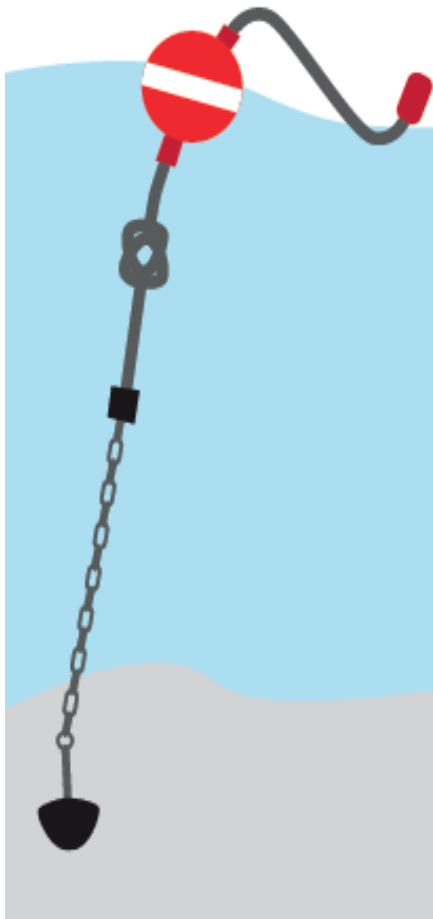
Organizations in a global networked world need leaders that can relate to a diversity of stakeholders



Source:  
Maak & Pless (2006) *Responsible leadership in a stakeholder society - a relational perspective*. *Journal of Business Ethics*.

# Transformative Powers

Successful corporate diversity implementations have transformative powers along many dimensions



## Practices and communication

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## Incentive and feedback systems

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## Structures, policies and processes

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## Culture, norm and values

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# Attracting Diversity in STEM

Role of Mentorship in Attracting Diversity



# Mentors are the living roadmap

Combining mentors and competition attracts a diverse population to the education and career field of Cyber Security

**They must see the pathway!**



# Cyber Mentors in Michigan

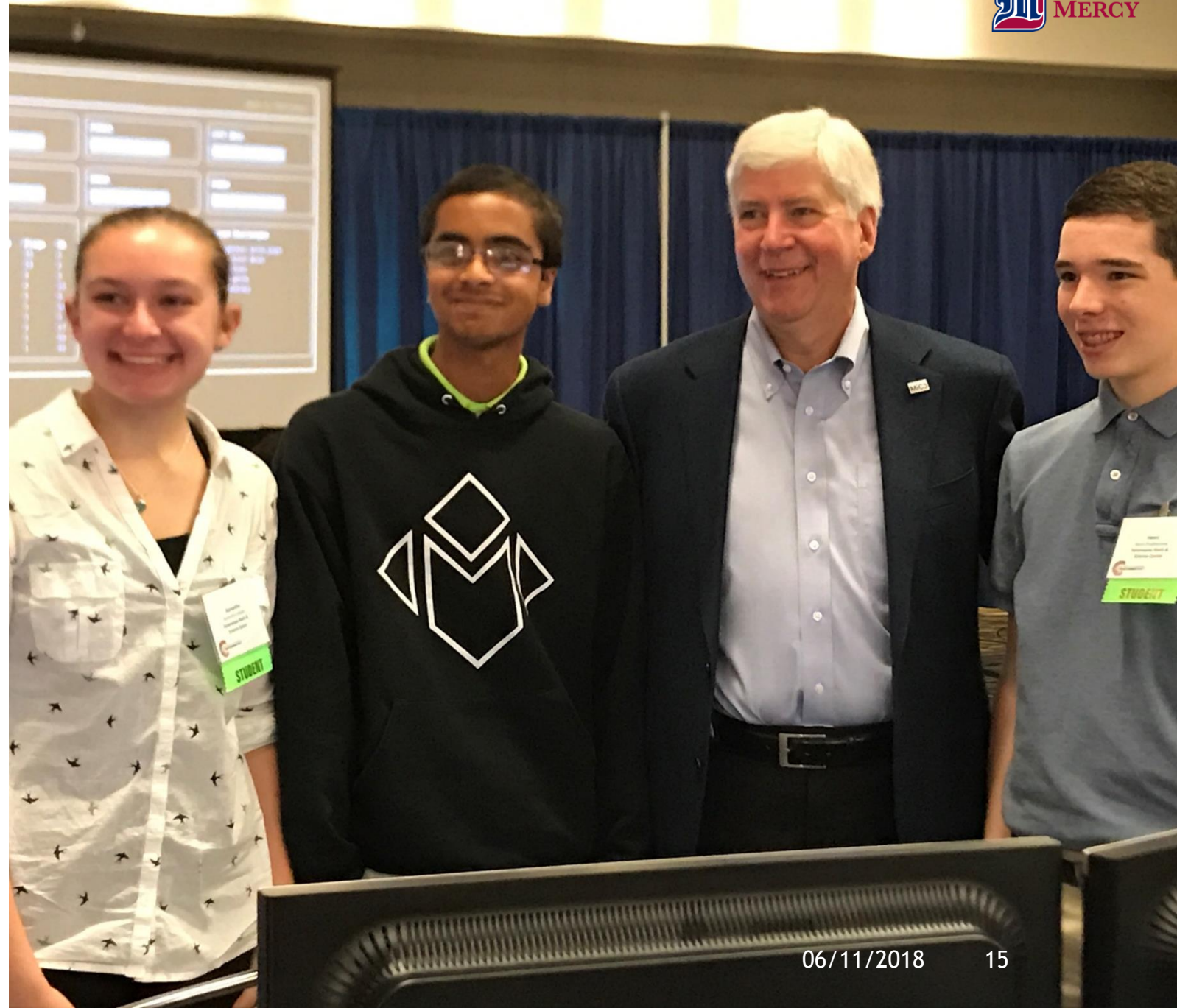
[Top 10 in 10](#) Educational system with access and rights for all

## [State Funded - Cybersecurity Grant](#)

- 500K grant funding to build a diverse cybersec pipeline supporting CyberPatriot and Merit Cyber Range

## [Marshall Plan for Talent](#)

- \$1.1M for Cybersecurity training and infrastructure
- Over \$36M for talent consortium for K-12 education programs focused on creating competencies and earning credentials in high-demand fields, including cybersecurity.



# Mentors built into International Competitions

<https://www.uscyberpatriot>

K-12 program with 6387 teams at about 32,000 students competing this year!

CyberCenturion presented by Cyber Security Challenge UK for age 12-18 with over 200 students competing yearly.

<https://www.cybersecuritychallenge.org.uk/competitions/cybercenturion>

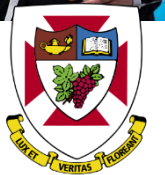
CyberTitan Canada 92 teams competing nationally and against the US teams. <https://www.cybertitan.ca/>

For more information you can contact [shoematl@udmercy.edu](mailto:shoematl@udmercy.edu)

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# Emerging Skills in the Diverse Digital Economy

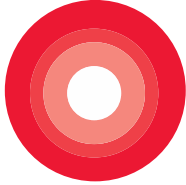
Movement Toward Multi Disciplinary Programs in Post Secondary



# Megatrends according to PwC



**Shifts in global economic power**  
Power shifting between developed and developing countries



**Resource scarcity and climate change**  
Depleted fossil fuels, extreme weather, rising sea levels and water shortages



**Technological breakthroughs**  
Rapid advances in technological innovation



**Demographic shifts**  
The changing size, distribution and age profile of the world's population



**Rapid urbanisation**  
Significant increase in the world's population moving to live in cities

## The Four Worlds of Work in 2030

*Fragmentation*



**The Yellow World**  
*Humans come first*

Social-first and community businesses prosper. Crowdfunded capital flows towards ethical and blameless brands. There is a search for meaning and relevance with a social heart. Artisans, makers and 'new Worker Guilds' thrive. Humanness is highly valued.



**The Red World**  
*Innovation rules*

Organisations and individuals race to give consumers what they want. Innovation outpaces regulation. Digital platforms give outsized reach and influence to those with a winning idea. Specialists and niche profit-makers flourish.

*Collectivism*

*Individualism*



**The Green World**  
*Companies care*

Social responsibility and trust dominate the corporate agenda with concerns about demographic changes, climate and sustainability becoming key drivers of business.



**The Blue World**  
*Corporate is king*

Big company capitalism rules as organisations continue to grow bigger and individual preferences trump beliefs about social responsibility.

*Integration*

PwC (2018). Workforce of the future. Available from <https://www.pwc.com/gx/en/services/people-organisation/workforce-of-the-future/workforce-of-the-future-the-competing-forces-shaping-2030-pwc.pdf>



# 14 Future Leadership Capabilities To Plan For NOW

i4cp research into the next practices of high-performance organizations shows that the following leadership capabilities are important considerations as your organization recruits, develops, and rewards leaders at all levels.

## Social

### Boundaryless Relationship Builder

Works across functional, organizational (including external stakeholders), and cultural boundaries to build networks and synergies that create business value.

### Conscientious Connector and Communicator

Connects and communicates with others with a clear and consistent business purpose in mind.

### Data Interpreter

Uses analytical skills to turn data into insights, stories, business recommendations, and decisions.

### Advocate of Informed Risk-Taking

Creates a safe environment for — and promotes the measured use of — risk-taking, balancing potential risk and return for organizational initiatives.

### User of New Media

Actively utilizes virtual and social technologies to engage, connect, communicate, and collaborate with others.

## Organizational

### Omni-Channel Thinker

Understands the linkages and interactions between the components that comprise the entirety of a defined system to optimize worker experience and organizational productivity.

### Purpose-Driven Collaborator

Ensures collaboration within the organization (among teams or individuals) is based on business needs or goals.

### Developer of Talent (self & others)

Prioritizes and actively participates in the continuous development of self and others that balances the desires of the worker with the needs of the business.

### Talent-Planning Architect

Deconstructs each critical or pivotal role to determine the individual tasks and skills needed and identifies/quantifies risks.

### Divergent Talent Manager

Orchestrates and energizes talent from any worker classification (employee, outsourced, non-traditional) to achieve desired business results.

## Personal

### Envisioner

Demonstrates ability to see scenarios and patterns across systems that identifies and addresses future possibility, potential, and risk.

### Globally Minded

Demonstrates openness to and awareness of cross-cultural diversity with a propensity and ability to see common patterns across countries and markets.

### Culturally Agile

Adapts own style and communications quickly and comfortably to work successfully in cross-cultural and diverse environments.

### Mindful

Takes time for regular introspection to cope and react best in current and anticipated situations.

# Leadership skills of the future favour women<sup>3</sup>

<sup>3</sup> YouTern (June 9, 2017). 14 Leadership Skills Needed to Compete in Today's Job Market. Available from Medium

- Can teach it now
- Need to teach more of
- Difficult to teach

# 10 skills to thrive in 2020<sup>1</sup>

<p><b>Complex Problem Solving</b></p> <ul style="list-style-type: none"> <li>• See relationships between industries</li> <li>• Craft creative solutions to problems</li> </ul>	<p><b>Critical Thinking</b></p> <ul style="list-style-type: none"> <li>• Turn data into insightful interpretations</li> <li>• Interconnect computer science, engineering &amp; biology, etc.</li> </ul>	<p><b>Creativity</b></p> <ul style="list-style-type: none"> <li>• Use random thoughts to develop ideas</li> <li>• Build something from ideas</li> </ul>	<p><b>People Management</b></p> <ul style="list-style-type: none"> <li>• Lead people to learn needed skills</li> <li>• Motivate diverse groups of people</li> </ul>	<p><b>Coordinating with Others</b></p> <ul style="list-style-type: none"> <li>• Collaborate in teams</li> <li>• Communicate effectively</li> </ul>
<p><b>Emotional Intelligence</b></p> <ul style="list-style-type: none"> <li>• <b>Empathy skills</b></li> <li>• <b>Curiosity</b></li> </ul>	<p><b>Judgment &amp; Decision Making</b></p> <ul style="list-style-type: none"> <li>• Condense vast amounts of data with analytics</li> <li>• Interpret and measure decisions against data</li> </ul>	<p><b>Service Orientation</b></p> <ul style="list-style-type: none"> <li>• Offer value to people</li> <li>• <b>Recommend solutions to the problems of society</b></li> </ul>	<p><b>Negotiation</b></p> <ul style="list-style-type: none"> <li>• Negotiate to arrive at win-win situations with businesses &amp; individuals</li> </ul>	<p><b>Cognitive Flexibility</b></p> <ul style="list-style-type: none"> <li>• <b>Switch between different personas to accommodate the challenge</b></li> </ul>

# Nesta Survey of 41 Million Job Adverts & Other Studies<sup>2</sup>

Most Promising Skills & Jobs	Least Promising Skills & Jobs
Animation & Multimedia production	Invoice processing & management
Design in engineering, product designers, creatives, mathematics, physicist, transportation engineers, water engineering, geophysicists, mechanical & telecom engineers	Data input and preparation of payroll and tax reports
Building and maintaining IT systems and networks, software developers, computer programmers, data architects	Clerical duties, Sales support and processing of orders & management systems
Research and quantitative data analysis, operations research, actuaries	Stock and inventory management & control systems
Care giving: medical technicians, veterinarians, teachers, trainers	Machine operation,

*Post secondary impacts: Multidisciplinary is in fashion & SMAC (social, mobile, analytics & cloud)*

- + *Art programs*
- + *IT & MIS*
- + *Science*
- + *Research projects*
- + *Innovation*
- + *Training*

*Post secondary impacts: Programs in decline*

- *Accounting*
- *General administration*
- *Operations management*

# Who will we be preparing?

## Population aged 20-64

Millions

	2000	2015	Projected 2050	Projected 2100
Japan	79	71	50	35
China	774	928	733	482
Europe	441	454	382	325
Americas	459	582	684	610
India	532	736	1029	867
Africa	352	536	1298	2485

## Implications....

Preparation & laddering  
Cultural differences & needs  
Student debt

...

*“So what should we tell our children? That to stay ahead, you need to focus on your ability to continuously adapt, engage with others in that process, and most importantly retain your core sense of identity and values. For students, it’s not just about acquiring knowledge, but about how to learn. For the rest of us, we should remember that intellectual complacency is not our friend and that learning - not just new things but new ways of thinking - is a life-long endeavour.”*

**Blair Sheppard**

Global Leader, Strategy and Leadership Development, PwC

# Examples of implementation

## The modernization example: RBC (Canada)

- National review of post-secondary education programs to assess their focus on human skills including global competencies
- National target of 100% work-integrated learning to ensure every undergraduate student has the opportunity for an apprenticeship, internship, coop placement or other meaningful experiential placement
- Standardization of labour market information with real-time interactive platforms on job information and skills
- National initiative to help employers measure foundational skills and incorporate them in recruiting, hiring, and training

## The development example: OECD report on Innovation and Research

- Develop a culture of life-long learners and implementers (individual responsibility)
- Enhance collaboration with industry, governments & educational institutions (network development for shared responsibility)
- Learn from the experience of others (sharing economy for education). Private sector leaders in Africa - Andela (talent accelerator that teaches computer programming)

## The build new example: Competition in education

- Guild for Data Analysts in Finland - training next gen
- Genspace and BioCurious - private sector allowing learners to create cool experiments
- Twitter U - revamping engineering skills
- Udemy - an online marketplace for learning



# Mainstreaming marginalized women for the Digital Economy



# Digital Economy : Opening the doors for the unreached

Socio-economically-culturally-educationally marginalized women have the resilience to leap frog in the Digital Economy as Consumers, Workers, Teachers and even Developers.

More than 100+successful case studies conclusively demonstrate the Impact of Digital Economy spanning social media networking, e & m-Commerce, embedded ICT tools, e-learning, e-health & host of applications.

Digital Economy motivates early laggards to find their rightful place even in Industry 4.0 scenario.



# Digital Tools & Economy: Biggest Equalizer: Impacting more than 650+million world wide



# Retaining Diverse Population in STEM

Incentives, HR, Team Assignments, Roles and Responsibilities





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# Special Insight: Women Entrepreneurs

5 Key Facts



WORLDCRUNCH

## Key Fact 1

# 163 MILLION

Globally, 163 million women have started a business since 2014

SOURCE: [2017 Global Entrepreneurship Monitor](#)

# Key Fact 2

# 5%

Women are 5% more likely to produce innovative ventures,  
compared with men

SOURCE: [Global Entrepreneurship Monitor](#)

## Key Fact 3

# 52% vs 30%

Women constitute **52%** of the total European population but only **30%** of start-up entrepreneurs

**SOURCE:** [https://ec.europa.eu/growth/smes/promoting/entrepreneurship/we-work-for/women\\_en](https://ec.europa.eu/growth/smes/promoting/entrepreneurship/we-work-for/women_en)

# Key Fact 4

# 11%

**€16.35 billion was invested across 3,465 VC deals in Europe.**

**For female founders, these figures dropped dramatically, to €1.84 billion and 553, respectively.**

**In practice, this means that women-founded companies in Europe receive just 11% of the VC capital spent on the continent**

# Key Fact 5

# 2,2%

Since 2013, the average male entrepreneur has raised more than 4 times more money than the average female entrepreneur. Startups without a male co-founder has raised only 2,2% of all venture capital raised worldwide.

Source: Pitchbook

# Did we get all the answers?

**WHY?**

- Business purpose

**WHAT?**

- Structure and culture

**WHO?**

- Accountable leaders and engaged co-workers

**HOW?**

- Endurance and focus



Thank you

# Appendix: Interesting Articles

- [I Know the Salaries of Thousands of Tech Employees: Pay equity requires transparency, so I'm revealing what I know](#)
- [Why it's totally unsurprising that Amazon's recruitment AI was biased against women](#)
- [Fortune's Most Powerful Women](#) ; [International Edition of our Most Powerful Women list](#)
- ['The Onlys': There Still Aren't Enough Women at the Table](#)  
[Corporate America has made almost no progress in increasing women's representation in the workplace for the fourth year in a row, a new study finds.](#)

# Appendix: Interesting Articles

- [Less than 1% of Sweden's venture capital in 2017 went to female-founded startups](#)