WELCOME

Future of Work and HR:
Optimizing Work Beyond Employment and Integrating AI

With CEO’s John Boudreau and Willis Towers Watson’s Ravin Jesuthasan

CEO
Center for Effective Organizations
All listener lines will be muted.

Want to speak during the discussion? Please click the “Raise Hand” button. Please click the button again (it will read “Lower Hand”) once you are finished speaking.

Have a question during the presentation? You can type it in the chat box and press send. Please send to “Everyone.”
• We are recording this webinar.

• A PDF of the slide deck and the recording will be available online after the webinar.

• We’ll send an email to attendees with the URL for these.
Today’s Speakers

Dr. John Boudreau

- Bridge between superior human capital, talent and sustainable competitive advantage
- Works with companies worldwide to discover and maximize specific strategic bottom-line impacts of superior people and human capital strategies

Ravin Jesuthasan

- Recognized global thought leader on the future of work and human capital. He has led numerous research efforts on the global workforce, the emerging digital economy and the transformation of work.
- Ravin was the lead partner for the World Economic Forum’s groundbreaking study; *Shaping the Future Implications of Digital Media for Society*.
- He has led numerous large-scale, global restructuring and transformation engagements for his clients.
The Fourth Industrial Revolution

We are today at the beginning of a Fourth Industrial Revolution
- Digital revolution
- Fusion of technologies blurring lines between the physical, digital, and biological spheres.
- Technological breakthroughs – e.g. Artificial intelligence, robotics, the Internet of Things

When compared with previous industrial revolutions
- Disrupting almost every industry in every country
- Significant impact on impact on jobs
  - Significant job creation to job displacement
  - Heightened labor productivity to widening skills gaps

In many industries and countries
- The most in-demand occupations or specialties did not exist 10 or even five years ago
- 65% of children entering primary school today will ultimately end up working in completely new job types that don’t yet exist

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Industrial revolutions and work

2nd | INDUSTRIAL REVOLUTION
---|-----------------------
Late 19th – early 20th century
“The assembly line”
Features:
- Underpinning for Coase’s theory of the firm
- Companies as social institutions
- Organization of work into jobs
- Jobs as careers

3rd | INDUSTRIAL REVOLUTION: FIRST MACHINE AGE
---|-----------------------------------------------
1960s – 1990s
“Nikefication” and core competencies
Features:
- Technology enablement and the web
- Companies as the nexus of contracts
- Steamlining of jobs to enable outsourcing

4th | INDUSTRIAL REVOLUTION: SECOND MACHINE AGE
---|-----------------------------------------------
2000s – “Uberization”
Features:
- Mobile, sensors, AI and machine learning
- Companies as platforms
- Disaggregation of work into activities

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Democratization of Work

A more highly democratized future is characterized by new “employment” relationships shorter in duration and more company/individual balanced. A shift toward a more agile and responsive view of work will deliver results by activating purpose-built networks.

Technological Empowerment

Technology is transforming the way we live and work. Machine learning, 3D printing, mobile, wearables, and algorithmic analytics are some of the many technologies that promise to improve individual empowerment.
### Exercise: Map Some of the Jobs at SK on the Matrix, in 2020

#### CURRENT STATE

**TYPE OF WORK**
Full-time employment, with variations such as contract, part-time, and flexible work

**TECHNOLOGIES**
Traditional delivery

#### TODAY, BUT TURBO CHARGED

**TYPE OF WORK**
Full-time employment, with variations such as contract, part-time, and flexible work

**TECHNOLOGIES**
Delivered by new technologies such as cloud, on-demand artificial intelligence, extreme personalization and personal devices

#### WORK REIMAGINED

**TYPE OF WORK**
Employment via platforms, projects, gigs, freelancing, contests, contracts, and tours of duty

**TECHNOLOGIES**
Traditional delivery

#### UBER EMPOWERED

**TYPE OF WORK**
Employment via platforms, projects, gigs, freelancing, contests, contracts, and tours of duty

**TECHNOLOGIES**
Delivered by new technologies such as cloud, on-demand artificial intelligence, extreme personalization and personal devices

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**Source:** CHREATE Data, 2015

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School of Business
Center for Effective Organizations
The emerging “Robo-gig” economy
Technology, digital media and robotics are transforming Work and Jobs

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Sources: Digital Media & Society, World Economic Forum in collaboration with Willis Towers Watson; Willis Towers Watson Research; also reference McKinsey & Co @ravinjesuthasan
The evolution of AI

Cognitive Automation

Recognition Artificial intelligence

Cognitive Artificial Intelligence

General Artificial Intelligence

Now

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University of Southern California
Enablers of work automation

<table>
<thead>
<tr>
<th>TASKS</th>
<th>Robotic Process Automation</th>
<th>Cognitive Automation AI, ML</th>
<th>Social Robotics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Routine, High-volume</td>
<td>Non-routine, creative</td>
<td>Routine, collaborative</td>
</tr>
<tr>
<td>MATURITY</td>
<td>HIGH</td>
<td>EMERGING</td>
<td>MEDIUM</td>
</tr>
<tr>
<td>IMPACT</td>
<td>MEDIUM</td>
<td>HIGH</td>
<td>HIGH</td>
</tr>
</tbody>
</table>
The Three things Cognitive Automation can do
The 3 things that Cognitive Automation can do for business

1. Automate & re-engineer tasks and processes
2. Develop new products & services
3. Gain new Data insights

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Technology is transforming work and jobs

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Certain activities are more susceptible to automation

Analyzing work activities rather than occupations is the most accurate way to examine the technical feasibility of automation.

Technical feasibility, % of time spent on activities that can be automated by adapting currently demonstrated technology

<table>
<thead>
<tr>
<th>Least susceptible</th>
<th>Less susceptible</th>
<th>Highly susceptible</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>18</td>
<td>64</td>
</tr>
<tr>
<td>20</td>
<td>25</td>
<td>69</td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Time spent in all US occupations, %

<table>
<thead>
<tr>
<th>Managing others</th>
<th>Applying expertise(^1)</th>
<th>Stakeholder interactions</th>
<th>Unpredictable physical work(^2)</th>
<th>Data collection</th>
<th>Data processing</th>
<th>Predictable physical work(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>14</td>
<td>16</td>
<td>12</td>
<td>17</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>
As such, the nature of work is evolving

Think
United States employment, by type of work, m

Non-routine cognitive

Routine cognitive

Routine manual

Non-routine manual

Sources: US Population Survey; Federal Reserve Bank of St. Louis

@mavinjesuthasan
Fear of job automation is not new

June 29, 1955,
Punch Magazine
Are we approaching “peak human”?  
Machine Learning and AI have come of age, and scale thanks to the cloud

More affordable and better care – but fewer doctors?  
IBM Watson successful diagnosis rate for lung cancer is 90% compared to 50% for human doctors.

Robo-advisers replace humans in banking  
RBS announces the shedding of 550 jobs, to be replaced by roboadvisers in order to cut costs.

AlphaGo beats world champion at Go  
Self-learning algorithms can improve their performance over time – and be applied to any complex cognitive problem (e.g. language translation)
This will require a fundamental paradigm shift in how work and our organizations are organized.

Our organization is a **place containing employees doing work.**

Our organization **organizes work and talent and AI.**
Assignment
- Deconstruct
- Disperse
- Detach

Reward
- Shorten
- Individualize
- Imagine

Organization
- Permeate
- Interlink
- Collaborate
- Flex

Engagement
- Leadership
- Diversity
- Performance
- Culture

From: *Lead the Work* by Boudreau, Jesuthasan and Creelman, 2015
From: *Lead the Work* by Boudreau, Jesuthasan and Creelman, 2015
Al-Powered HR Roles

AI Ethics Evaluator

Robot Trainer

Cyber Ecosystem Designer

Remote Culture Architect
Solving Disruptions

Boundaryless Work Ecosystem

Solutions Span Functions

Systems Are the Carrier Wave
Thank You for Joining Us!

To sign up for our upcoming Future of HR program in Chicago on September 14, please visit ceo.usc.edu