



Planning the cyber workforce of the future



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Agenda

Introductions

Market trends and the Future of Work

Future of Work and National Initiative for Cybersecurity Education (NICE) Framework

Concluding thoughts

Question and answer



Introductions

Meet today's presenters



Sarah Benczik, Senior Manager

Deloitte Consulting LLP
Human Capital



Josh Drumwright, Senior Manager

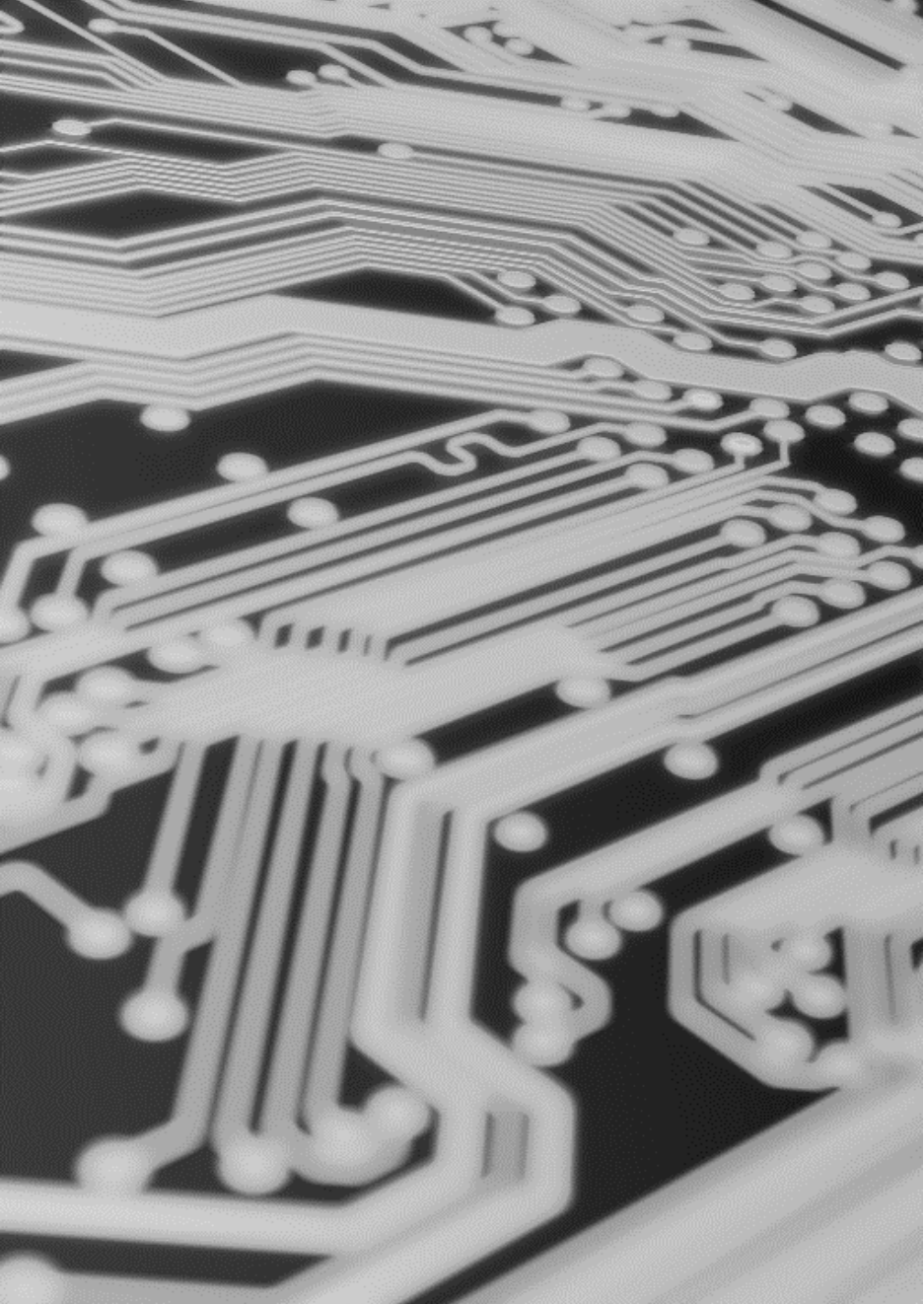
Deloitte & Touche LLP
Cyber Risk Services



In 2017 the US employed nearly 780,000 people in cybersecurity positions, with approximately 350,000 current cybersecurity openings

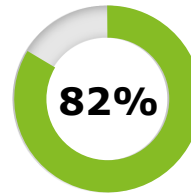
<https://www.cyberseek.org/heatmap.html>



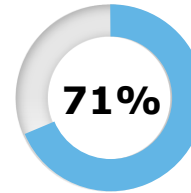


The cyber workforce gap

Hiring managers face an unprecedented talent shortage



82 percent of cybersecurity professionals report a shortage of cybersecurity skills



71 percent believe this shortage does direct and measurable damage



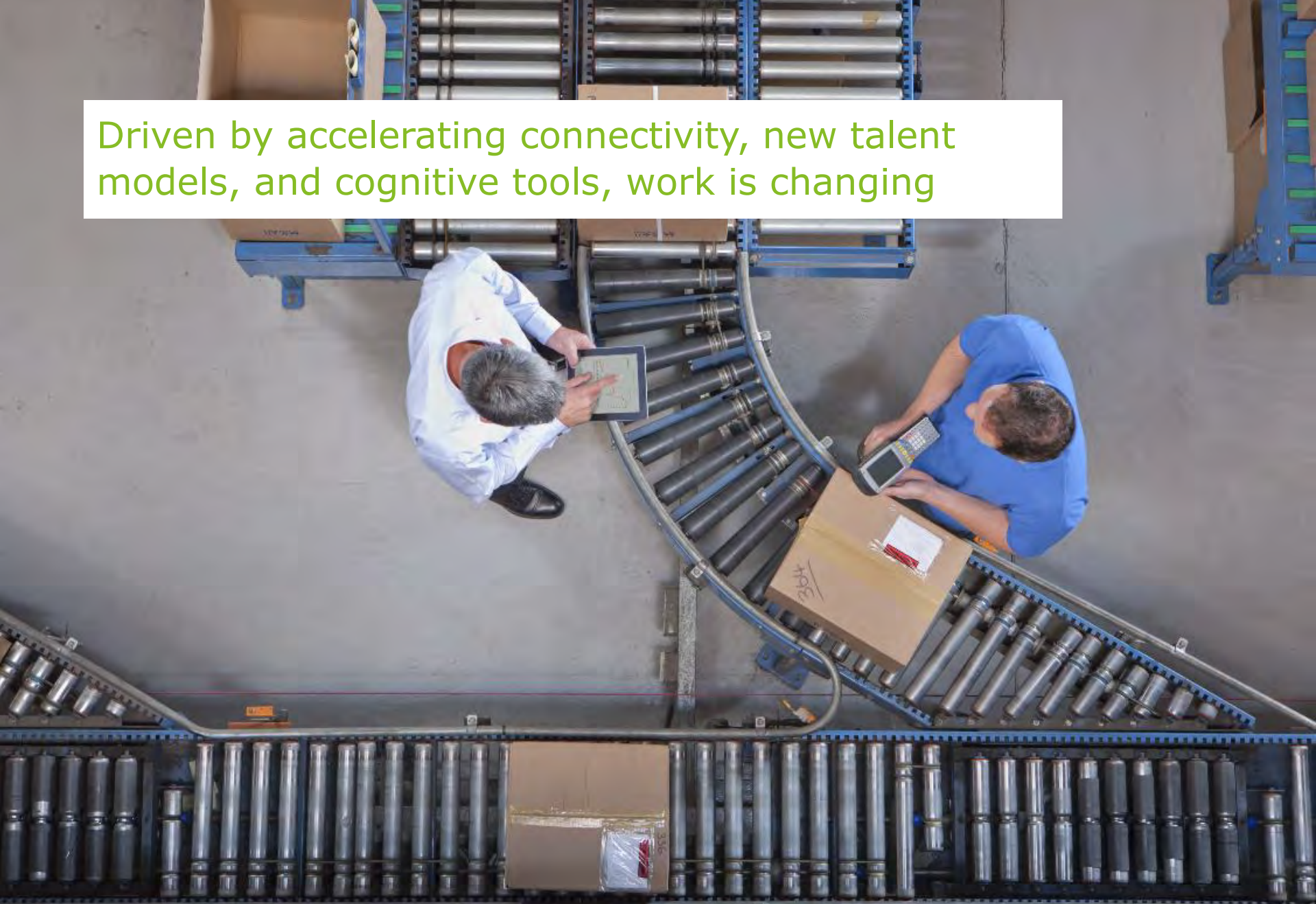
Nine out of 10 believe that technology could help compensate for skill shortages



Hiring managers must address talent scarcity with **unconventional strategies** that enhance existing workforce skillsets

https://www2.deloitte.com/content/dam/Deloitte/de/Documents/human-capital/DR22_Augmented-security.pdf

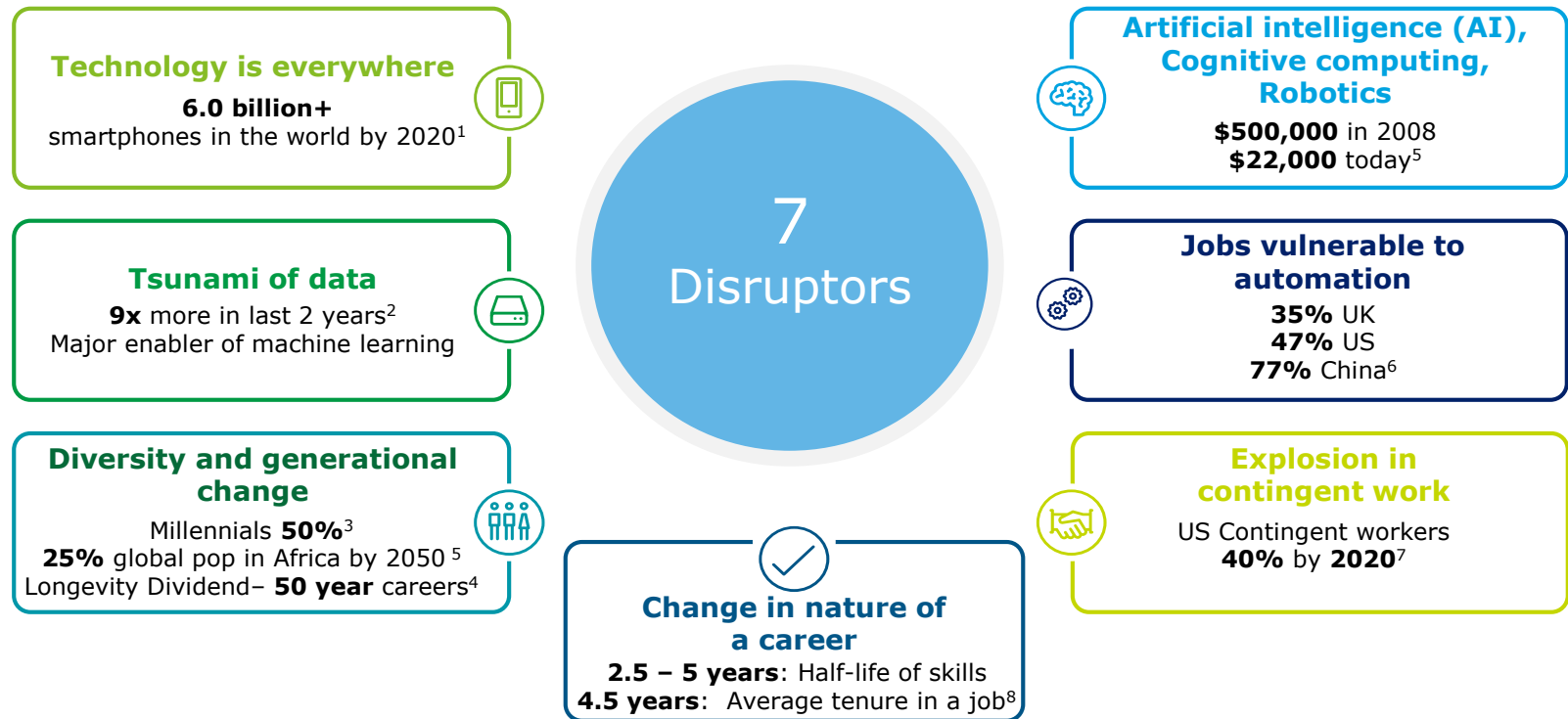
Driven by accelerating connectivity, new talent models, and cognitive tools, work is changing



Disruption lies ahead

Unprecedented change and opportunity

Everyone is talking about the Future of Work and the need to address it is only accelerating...



1 <https://www.cnbc.com/2017/01/17/6-billion-smartphones-will-be-in-circulation-in-2020-ihc-report.html>

2 <https://www-01.ibm.com/software/data/bigdata/what-is-big-data.html>

3 Annual Global Millennial Study, <https://www2.deloitte.com/uk/en/pages/about-Deloitte-uk/articles/millennial-survey.html>

4 <https://www.newscientist.com/article/mg23130810-800-the-100-year-life-how-should-we-fund-our-lengthening-lives/>

5 https://www2.deloitte.com/content/dam/Deloitte/il/Documents/human-capital/Thriving_in_times_of_digital_disruption.pdf

6 http://www.oxfordmartin.ox.ac.uk/downloads/reports/Citi_GPS_Technology_Work_2.pdf

7 Intuit 2020 Report: Twenty Trends that will Shape the next Decade https://http-download.intuit.com/http.intuit/CMO/intuit/futureofsmallbusiness/intuit_2020_report.pdf

8 <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/HumanCapital/dttl-hc-english-opentalentecconomy.pdf>

The changing world of work

A new era of work requires new rules




Industry must reconsider how jobs are designed and work to adapt and learn for future growth



The future of work

Disrupting where, how, and by whom work is done

“WHO”

2 Who can do the work? 


Technological advancements enabling new models for interaction between companies, employees, and customers...

“WHAT”

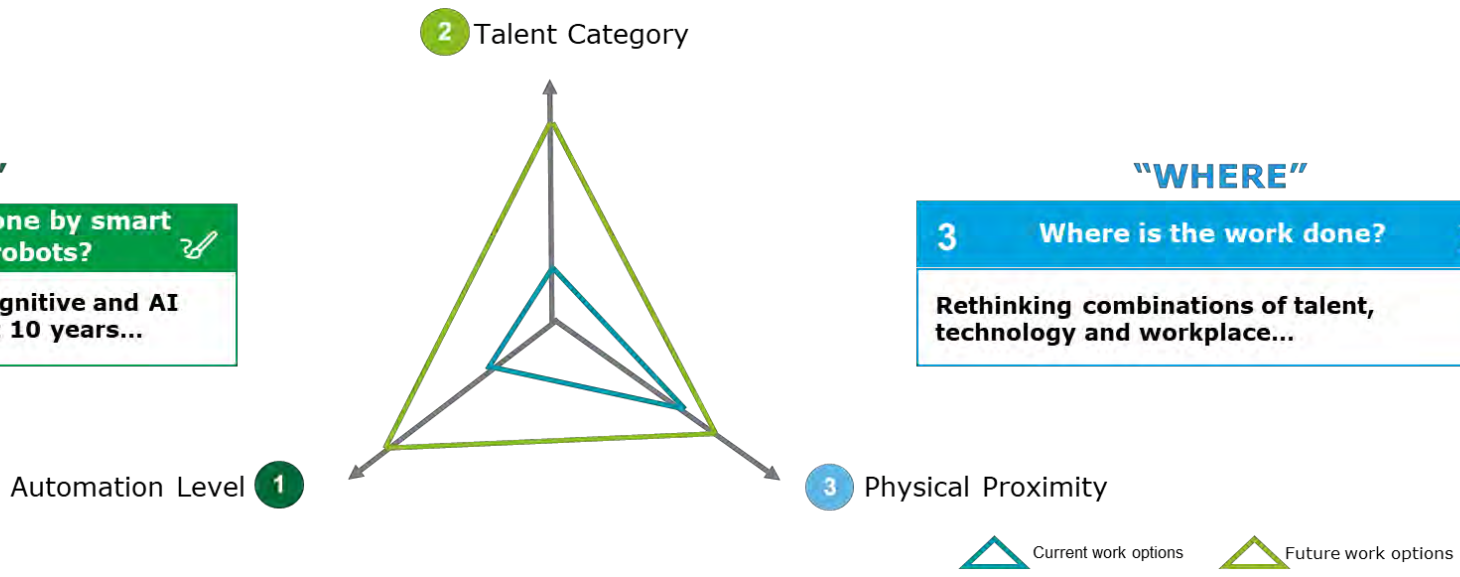
1 What work can be done by smart machines and robots? 

Increasing automation, cognitive and AI technologies over the next 10 years...

“WHERE”

3 Where is the work done? 

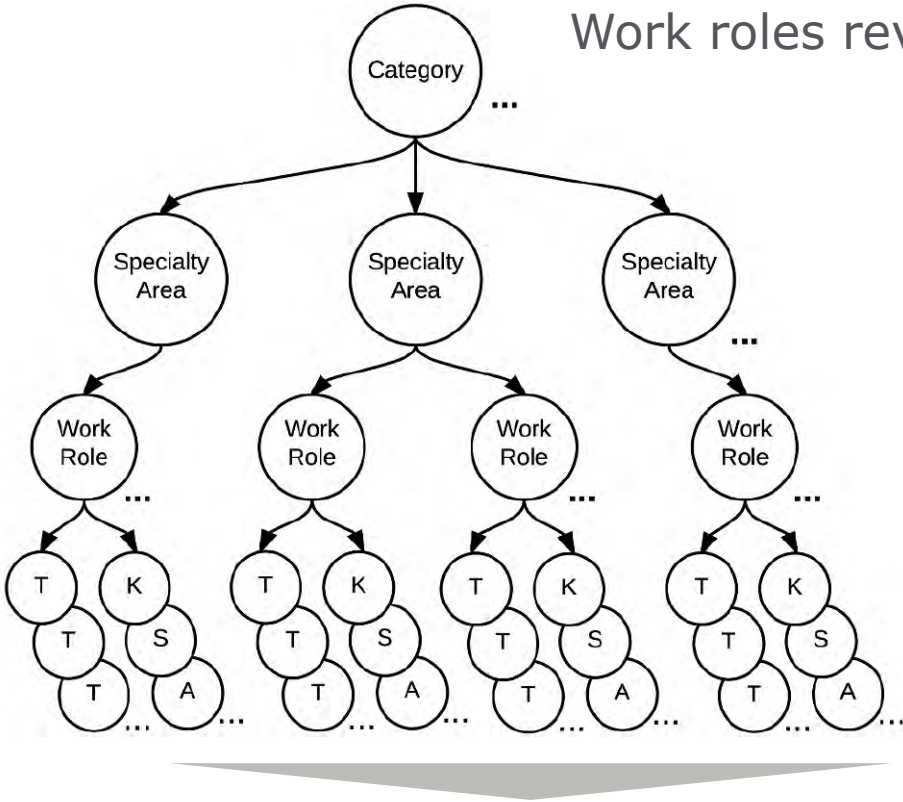
Rethinking combinations of talent, technology and workplace...





The NICE framework

Work roles revisited



Example: NICE Work Role

Category	Specialty Area	Work Role	Work Role ID	Work Role Description
Protect and Defend (PR)	Cyber Defense Analysis (CDA)	Cyber Defense Analyst	PR-CDA-001	Uses data collected from a variety of cyber defense tools (e.g., IDS alerts, firewalls, network traffic logs) to analyze events that occur within their environments for the purposes of mitigating threats.

<https://www.nist.gov/itl/applied-cybersecurity/nice/resources/nice-cybersecurity-workforce-framework>

NICE work roles and the Future of Work

NICE work roles can accelerate the identification of what, who, and where of industry-wide cyber work



1

Understand the organization's cyber workforce by mapping to the NICE Framework



2

Evaluate the ability to change the who, what, and where for each work role



3

Prioritize opportunities to **begin transforming the cyber workforce**

4

Address the organizational impact of redesigning work

*How does the Future of Work change the requirements of your **approach to leadership**?*

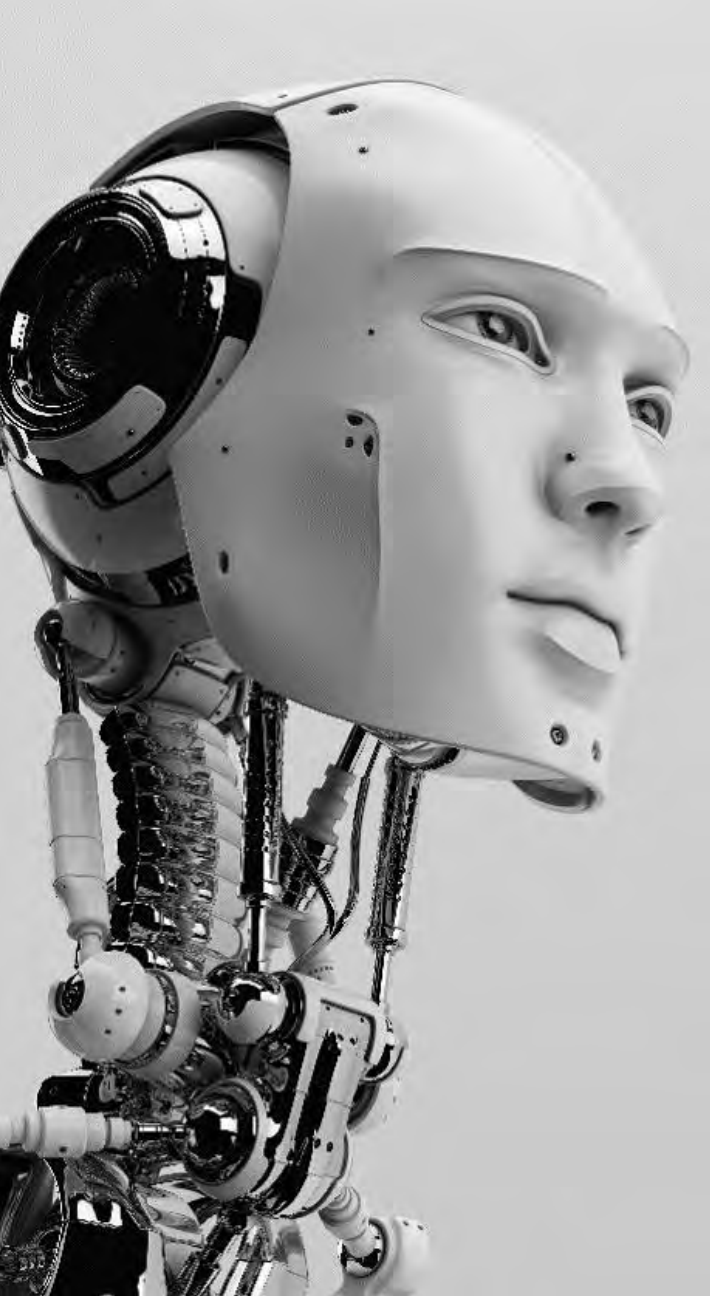
*How does the Future of Work and workforce **influence the design and behavior** of your organization?*

*How does the future of work change how you **approach talent, career, and learning models**?*

*How do you develop a **workforce experience** to lead and manage an augmented workforce?*

A man in a white shirt is holding a tablet, looking at the screen. The background is a dark blue space filled with numerous glowing, colorful lines (red, green, blue, yellow) that crisscross and curve, creating a sense of dynamic data flow or a complex network. The lighting is dramatic, with strong highlights on the man's shirt and the tablet.

As robotics, AI, the gig economy, and crowds grow, cyber organizations are reimagining their future workforce to help manage cyber risk



For cyber, the Future of Work is now

Many cyber organizations are re-defining a new set of rules for the work, workforce, and workplace



Managed services



Automation



Cognitive intelligence



Crowds



Contractors



Freelancers



Digital innovation

If everything is on the
table, **how will your
business respond?**



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Question and answer



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