



Getting Ready for the Rise of the Humans

Texas Government Data Forum 2018

June 21, 2018



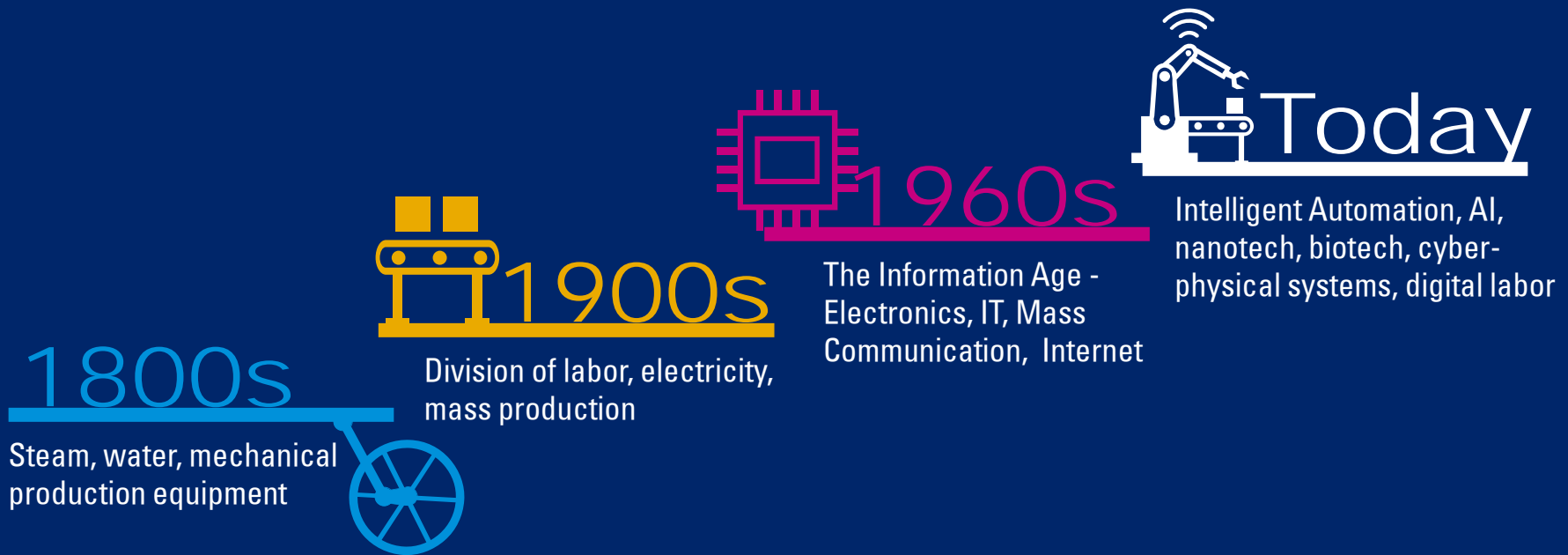


The context:

On the edge of a digital
revolution driven by data

Technology is at another major inflection point

The 2016 World Economic Forum in Davos referred to this as the Fourth Industrial Revolution, but the rapid adoption of digital technologies and digital business models are enabling a period of a rapid technological change that is transforming every aspect of our lives with a huge impact on the future of work and employment.



The “4th industrial revolution” (cyber-physical systems) is beginning
and its impact is profound according to the World Economic Forum founder, Klaus Schwab

We stand **on the brink of a technological revolution** that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before.

We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society.

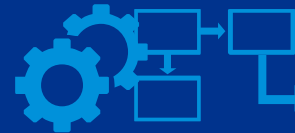
Klaus Schwab

Founder and Executive Chairman,
World Economic Forum Geneva

A new era of jobs



Advancements and adoption of cloud computing



The digitization of massive amounts of data



Advancements in analytics

The spectrum of technologies range from basic automation to intelligent automation

RULES

Basic process automation

- Macro-based applets
- Screen level and OCR data collection
- Workflow automation
- Process mapping
- Self executing

LEARN

Enhanced automation

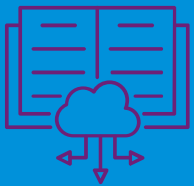
- Built-in knowledge repository
- Learning capabilities
- Ability to work with unstructured data
- Pattern recognition
- Reading source data manuals
- Natural language processing

REASON

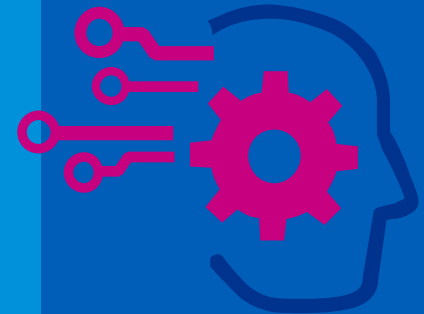
Cognitive automation

- Artificial intelligence
- Natural language recognition and processing
- Self-learning (sometimes self optimizing)
- Processing of super data sets
- Predictive analytics/hypothesis generation
- Evidence-based learning

ACT
like a human



THINK
like a human



Changing the way work is done – **shifting to a digital labor force**



Intelligent Automation has spawned a dramatic revolution in how humans and machines interact

Applications for these technologies include automation and digitizing of business operations through knowledge augmentation and decision enhancement of highly skilled professionals such as executives, accountants, attorneys and scientists.

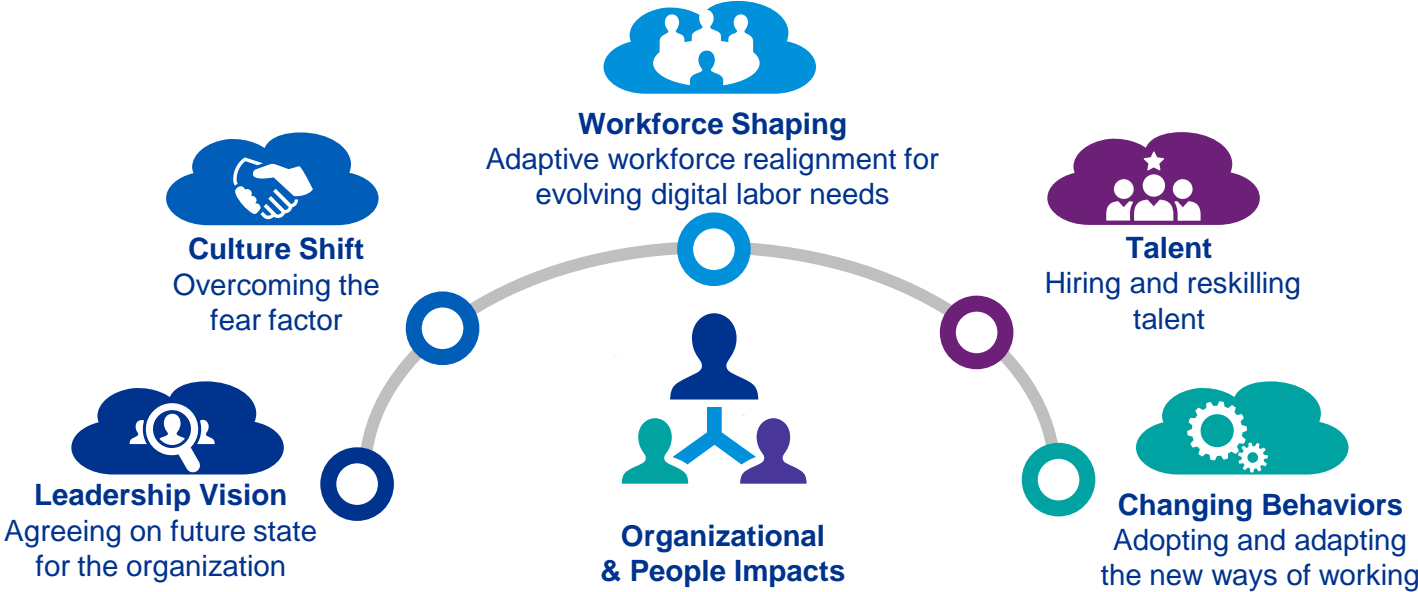


Intelligent Automation will completely recreate business and operating models

In their most advanced form, these technologies will interpret vast amounts of data from multiple structured and unstructured sources including, text, voice, imaging, video, evaluate evidence and use specific algorithms and ontologies to simulate reasoning, make decisions based on a mix of evidence and probability, much like a human would.

Organizational and people impacts

To successfully incorporate Intelligent Automation within processes and teams, organizations must proactively address the impacts to their people and the overall organization in order to minimize business disruption and expedite the timing of benefits realization.



Unique Characteristics of Intelligent Automation Implementations

Speed of Implementation
The rate of change is faster than traditional process and system implementations

Demands a Higher Purpose Conversation
Employers will need to understand and engage with the impact they will have on society

Constant Change
Intelligent Automation implementations will be iterative and constantly evolving to develop optimal workforce productivity and ROI

Creating the partnership between man and machine

Integrating a human and automated workforce must be carefully planned and executed. The new man-machine ecosystem requires fundamental changes in the skills and responsibilities across the entire organization and operations



Initiate the relationship as soon as possible

- Plan roles and responsibilities in advance of releasing your first bots
- Identify teams that will be impacted first based on your release strategy
- Take advantage of user acceptance testing to make introductions
- Provide training on new ways of working with clear focus on exception handling
- Understand breaking points such as process upstream dependencies



Integrate your new digital workers with your current teams

- Assess the resource requirements to retain and attract new talent
- Communicating and engaging with your new workers will be critical
- Train your management team since they will manage a newly blended workforce
- Make your change management team an active partner in this journey
- HR, Employee Relations and Communication teams will have to work even more closely



Recognize the need to create new career paths

- Review your existing employee value proposition to recognize the new workforce diversity
- Recognize that IT savviness will be a core skill across your organization
- Reconsider your current talent sourcing to better connect skills with career paths

Re-coding the workforce: Rise of the humans

Steps can you take to prepare your organization:

01

Start with the end user

Put the employee experience at the center, rather than automating existing, inefficient processes. Use technology to augment what they do.

02

Ignore the hype

Start small with specific tasks or activities where automation could generate a quick win. Adapt goals as you go along, recognizing that this is an ongoing journey and not a destination.

03

Shift your mindset

Address automation anxiety in your workforce. Carefully manage how you redesign roles and change process. Culture is a key component of successful transformation.

04

Redesign boundaries and hierarchy

HR must help employees understand the shift as tasks are automated and boundaries between roles blur. Traditional hierarchies and role demarcation will change.

05

Experiment

Test things out in smaller areas or functions first and learn as you go. Decide early what assurances to give to employees.

06

Build a learning culture

Support a lifelong culture as job descriptions shift and employees' career expectations change. Encourage workers to "learn how to learn."

07

From workforce planning to workforce shaping

Digital organizations must plan for multiple scenarios and shape their workforce accordingly. HR must move away from workforce planning to something more adaptive and continuous.

08

Lead the change

HR must take ownership of the digital change process with leaders, employees and other stakeholders as businesses compete to recruit the right mix of talent.

Communicate

Support leaders in their own digital discussions as they explore the prospect of automation with the workforce and other stakeholders. How can they frame their communications and where do they fit into the process?

09

Remember the 'why'

What is the higher purpose in digitally transforming your workforce? Consider the ethical implications of your automation strategies and the potential impact on your employer and consumer brand.

10

Disruptors in government

Disruption is not new - the speed is faster and continues to accelerate



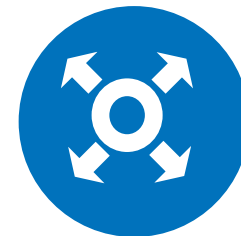
Constituent experience centricity



Big data



Emerging technology



Mission expansion



Aging workforce



Legacy IT modernization



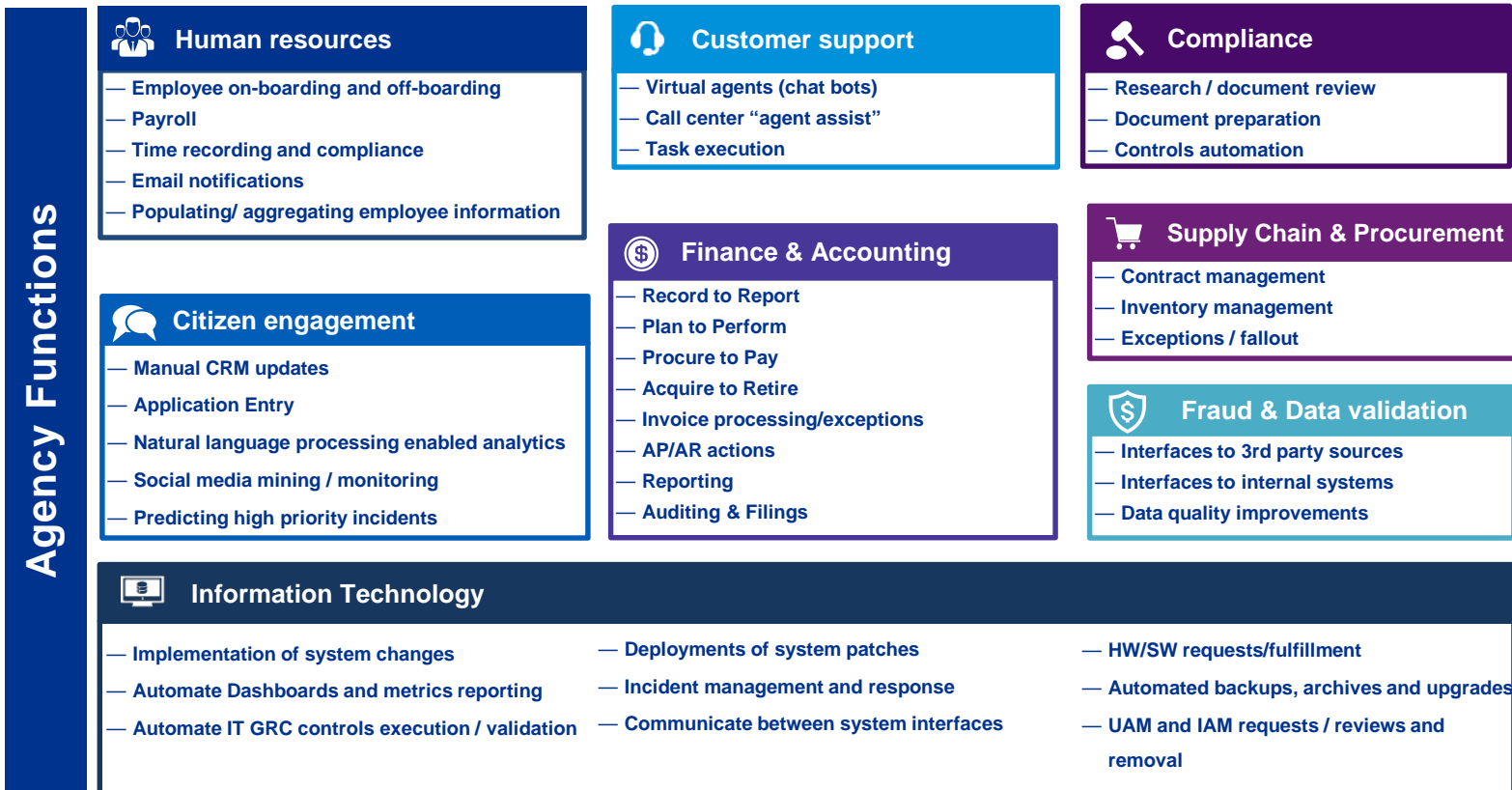
Shifting regulatory environment



Budget pressures

Intelligent automation in core government processes

Core process areas are good to start with and can open the door to Intelligent Automation as well as opening the gateway to widespread cognitive applications.



Many organizations take these steps to get started



“Size the Prize” – Evaluating processes by suitability for automation and effort to estimate overall benefit potential



Conduct a Proof-of-Concept – Demonstrating the technology effectiveness and validating performance



Define a Deployment Roadmap – Outlining steps to stand up a Intelligent Automation capability and begin to capture the benefits

Considerations and lessons learned



Establish an enterprise-wide capability



Select vendors aligned with your ambition



Start small; deliver swiftly



Partner with your technology function



Set your priorities and the rest will follow



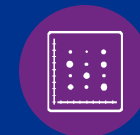
Consider business scalability



Strike the balance of your digital transformation



Build solid foundations



Evolve your analytics capability



Protect your business case



Identify and incentivize talent



Automation 'horses for courses'



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