Shaping the Future of Work in a Digital Era

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Executive Summary

The realms of **work, live, and play** which had been clearly demarcated by corporate policies, devices, offices, and firewalls continue to merge in the digitalized era. This trend is further accelerated by a growing number of millennials entering the workforce and innovative technologies such as augmented reality and virtual reality (AR/VR), artificial intelligence (AI), machine learning, and voice interfaces, which are fundamentally changing how work is done, business models, and even the nature and makeup of work itself. All these demand fresh thinking and a holistic organizational transformation, utilizing the **Future of Work** framework.

However, the Future of Work is not just about automation and technology upgrades, but a **holistic strategy** that aims to leverage digital technologies, attitudes, and behaviors to reinvent the way businesses engage with their employees, partners, and customers to deliver superior experiences that result in sustained competitive advantage.

This IDC InfoBrief, sponsored by HP Inc., outlines the key trends, challenges, and priorities for the Future of Work and a framework that organizations can utilize to drive transformation across the three dimensions of Workspace, Workforce, and Workculture to **future-proof their organizations for the digitalized era**.

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# To Thrive in the Digitalized Era, a Holistic Transformation across All Facets of Work Is Needed

IDC refers to this transformation as the **Future of Work**. IDC defines the Future of Work as the application of new talent management practices along with 3rd Platform technologies and Innovation Accelerators such as AR/VR, AI, and the Internet of Things (IoT) to fundamentally change the concept of work and how it is done. It is a holistic strategy that aims to leverage **digital technologies, attitudes**, and **behaviors** to reinvent the way businesses engage with their employees, partners, and customers to drive higher efficiencies and **deliver superior experiences** (than just products or services) that result in **sustained competitive advantage.**

75%
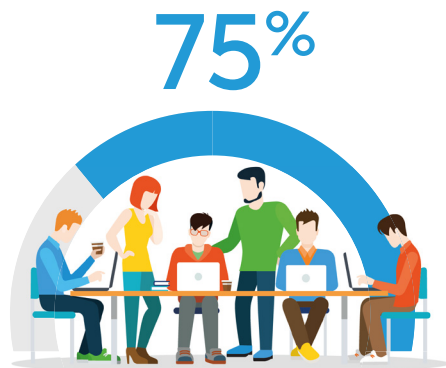
By 2025, **Millennials** will represent **75%** of the global workforce. Millennials, and broadly digital natives, are profoundly impacting all facets of work.

FUTURE OF WORK*

The **Workspace of the Future** will increasingly be a mix of physical and virtual spaces. These spaces will comprise flexible configurations, modern designs, and naturally interactive technologies to meet the needs of the digital era, and to suit the taste of millennials – all while ensuring security and compliance.

WORKCULTURE

WORKSPACE
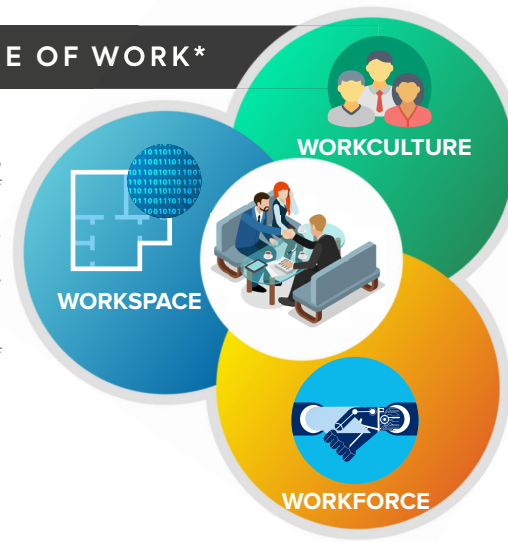
WORKFORCE

The **Workculture of the Future** will be even more borderless, collaborative, and innovation focused, with culture as the defining character that enterprises will utilize to compete in the digital era.

The **Workforce of the Future** will increasingly be distributed with intelligent machines and humans working together. Emerging technologies will augment human capabilities delivering automation, and new products and services that can only be imagined today.

*IDC Future of Work framework

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Future Workspace
Not Confined to Physical Offices

The Future of the WorkSpace is an open, flexible and a highly connected working environment whereby employees enjoy mobility and secure remote access to the right tools and data to fulfil their roles, with speed and ease.

Top 5 Enterprise Mobility Initiatives

5 Mobile App Management & Security

1 Unified Endpoint Management (UEM)

2 Purchase of smarter devices

3 B2C/B2E Mobile App Deployment

4 Mobile Endpoint Security

In 2017, 64% of organizations offered a flexible working environment (21% higher than the year before)

More than

80%

of companies in the World's Top 5 economies plan to either retain or increase their mobility investments in the next 12-18 months.

U.K.

LEGO's main office in London features "activity based working" and has no fixed seating or physical departments. Employees are located according to their activity during the day, fostering cross-organizational collaboration and engagement.

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Future Workspace
Truly Immersive with AR/VR Technologies

The lines between physical and virtual are increasingly merging in the workspace. Leading organizations across the world have already begun their Future of Work journey by introducing AR/VR technologies for employees and customers. Key applications include design and visualization, marketing and sales enablement, corporate trainings, field services, and retail showcasing.

Commercial spending on **VR technologies** will surpass consumer spending in 2019.

Application of AR/VR in Enterprises

Knowledge Workers
By 2021, **one third** of information workers will leverage AR at the desktop or on mobile to manipulate digital information, interact with real-world objects, and collaborate with colleagues.

Field Services
By 2020, **15%** of all field service technicians will utilize AR technologies.

Corporate Training
By 2020, VR will transform **20%** of corporate training, increasing effectiveness and cutting costs by half.

COUNTRY SNAPSHOTS

In the **US**, Verizon has deployed AR technology to train and deliver content to its FiOS technicians in the field.

In the **Netherlands**, KPN field engineers conducting remote or on-site repairs use AR smart glasses to see a product's service-history data, diagnostics, and location-based information dashboards.

In the **UAE,** DEWA has adopted the Microsoft HoloLens to provide interactive 3D models for the plants' equipment, remote expert assistance and other operating procedures for faster decision making.

In **Australia**, the Commonwealth Bank of Australia has developed a VR experience for recruitment to offer a glimpse of its offices and culture. Qantas Airlines has a VR app to promote tourism and bookings.

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Future Workforce
Rise of the Gig Economy and Borderless Enterprises

The nature and makeup of the workforce is dramatically evolving. New generation of employees, i.e. Millennials but increasingly GenZ and broadly any digital native worker, are leading a completely digital lifestyle and greatly impacting talent and human capital management practices at enterprises.

58%
of organizations are mainly made up of non-salaried employees.

80%
of the workforce will use virtual, borderless and task-oriented recruitment platforms by 2023

**Getting the right people will be the sustaining difference for companies to succeed over time.
The war to attract emerging digital skill sets is drastically changing talent sourcing models**
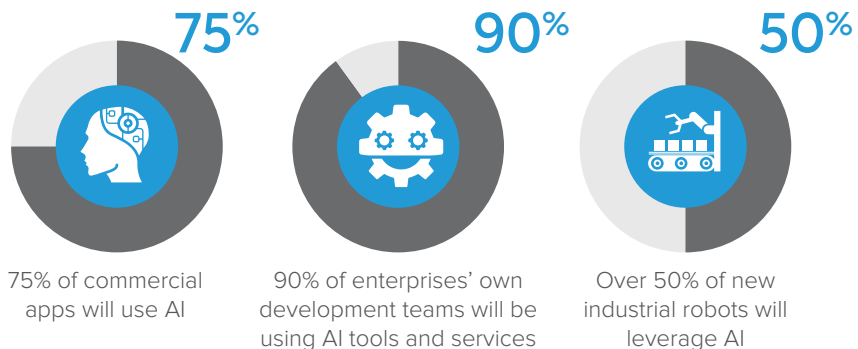
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Future Workforce
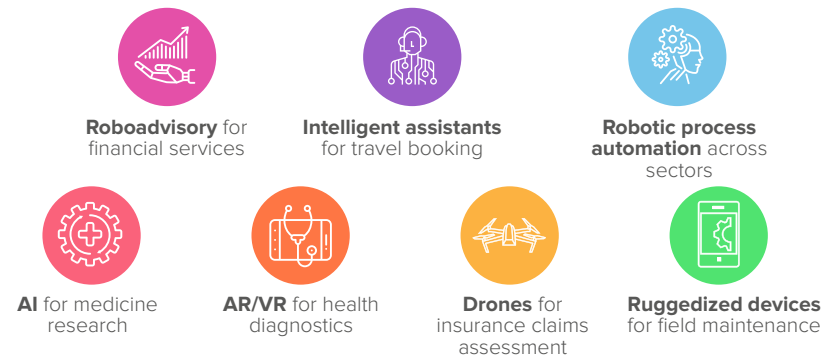# An Increasing Mix of Machines and Humans

Artificial intelligence technologies are reshaping the way tasks are performed. There is also a growing mix of humans and intelligent machines in the form of bots working together. This means that the workforce of the future needs to successfully collaborate with intelligent machines as well as manage and supervise tasks performed by them. While AI creates opportunities for automation, the real value is in augmenting the capabilities of the workforce and delivering value that can only be imagined today.

AI Everywhere

By 2021...

75%

90%

50%

75% of commercial apps will use AI

90% of enterprises' own development teams will be using AI tools and services

Over 50% of new industrial robots will leverage AI

Technology Augmenting Human Capabilities

Roboadvisory for financial services

Intelligent assistants for travel booking

Robotic process automation across sectors

AI for medicine research

AR/VR for health diagnostics

Drones for insurance claims assessment

Ruggedized devices for field maintenance

AI will have a profound impact on the way work is performed in every sector. Existing workflows will be transformed and many new business processes will evolve as bots become part of everyday workflows.

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Future Workculture
Fostering Ecosystems for Innovation and Collaboration

As work, live, play continue to merge, coworking has become a growing trend across global markets. However, coworking is not just about cost savings and as-a-service workspaces — innovation, talent attraction, and retention are the core tenets for this growing trend. And at the heart of this trend is the changing workculture, which is creating new opportunities and challenges for organizations.
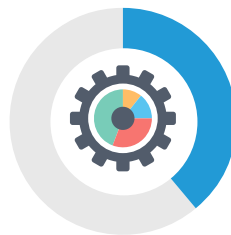
HOW ARE ORGANIZATIONS LEVERAGING THEIR DIGITAL INNOVATION LAB?

Innovation labs are often designed to raise the digital IQ of the organization — driving cultural acceptance of digital innovation.

Globally, there will be **19,000 coworking spaces** with **1.7 million people** working out of these in 2018, up from just 43,000 in 2011.

49%
Driving co-innovation with partners

39%
Using it to educate and train employees

34%
Driving co-innovation with startups / developers

28%
Driving co-innovation with customers

Collaboration is the essence of productivity and innovation in the workplace, and it is the glue that keeps employees highly engaged and motivated towards a common goal.

To attract and retain the best talent and foster collaboration, many large organizations such as Microsoft, KPMG, Boeing, BNP Paribas, Kimberly-Clark, and HSBC are leveraging coworking spaces.

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Future Workculture
A Digital-First Approach and New Workflows to Meet Different Expectations

The digital economy is fundamentally changing the traditional operating models and this has a strong bearing on an organization's interactions with their internal and external stakeholders, and the work culture. The Future of Work transformation is not just about the physical workplace and employee experience. Organizations today are akin to digital platforms where different stakeholders have different expectations, and organizations need to focus on technologies and practices that help shape the future workculture.

EXPLORE AREAS FOR TRANSFORMING WORKFLOWS TO MEET DIFFERENT STAKEHOLDER EXPECTATIONS

Employees
‣ Seamless experiences
‣ Anytime, anywhere
‣ Modern, freedom, fun
‣ Collaborative

Enterprise
‣ Innovation, new revenue streams
‣ Security and compliance
‣ Cost savings
‣ Improve productivity and efficiency

Keep Users and Experience...

...at the Center

Customers
‣ Superior experience
‣ Faster resolution
‣ Personalized, promotes accessibility
‣ Respects privacy and security

Partners
‣ Easier, faster access
‣ Better collaboration
‣ Information sharing
‣ Security, compliance

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But Transformations Are Not without Challenges

While DX is a top priority, the device and platform diversity has evolved dramatically in enterprises, and adding to that is the rise of anytime, anywhere working practices. These initiatives have improved productivity and efficiency, but these are also creating enormous challenges for IT teams that are tasked with managing and securing devices and applications. Besides the IT challenges, the lack of digital skills and the rapid pace of change are creating tremendous friction and change management issues.

Top CXO Challenge

#1 **Change management is the biggest challenge for organizations and many have yet to effectively digitally transform.**

Security
Increasing threats in a connected world and strengthening regulations have moved security from being an IT issue to a boardroom concern.

Increasing Mix of Devices
Managing and configuring policies, apps, and upgrades for diverse devices and platforms is a daunting task.

Legacy Systems and Processes
Integration and interoperability challenges are impeding the pace of transformations.

Lack of Skills
Rapid pace of technology advances and emerging technologies require new skills and capabilities, which are in demand but scarce.

KEY ITDM CHALLENGES
ITDM: IT decision maker

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Digital Transformation Is a Top Business Priority Globally

As digitalization reaches macroeconomic scale, organizations recognize the impact of digital technologies for their businesses, and believe digital transformation (DX) is the way forward.

50%
of Global GDP Will Be Digitized over the next three years, with Growth in Every Industry Driven by Digitally Enhanced Offerings, Operations, and Relationships
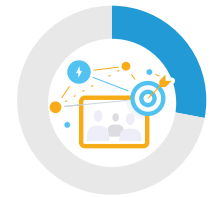
CxOs Top **DX** Priorities

52%
Operational Excellence, in the production of offerings.

50%
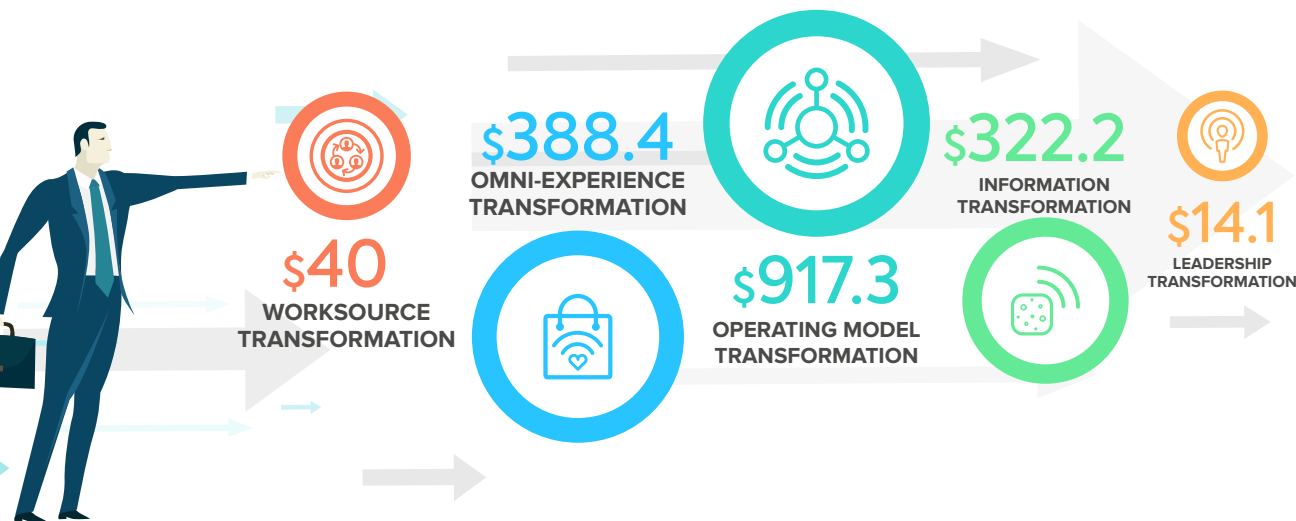**Customer Excellence** with products and services.

28%
Talent Excellence with change management, collaborative and innovation culture.

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Organizations Are Investing in DX to Thrive in the Digital Era

Leading DX companies start with a top-down DX strategy (Leadership DX) with clear goals and objectives, develop and retain the right digital talent (WorkSource DX), and use enterprise data (Information DX) to drive new business model development that engages stakeholders (Omni-Experience DX). All these while creating robust digital business process capabilities that operate with speed, scale, and agility (Operating Model DX).

**CxOs are heavily investing in each of the IDC DX dimensions.
IDC expects the following spend by 2019 (US$ Billion).**

$388.4
**OMNI-EXPERIENCE
TRANSFORMATION**

$322.2
**INFORMATION
TRANSFORMATION**

$40
**WORKSOURCE
TRANSFORMATION**

$917.3
**OPERATING MODEL
TRANSFORMATION**

$14.1
**LEADERSHIP
TRANSFORMATION**

IDC expects DX investments in technologies to continue to increase significantly over the foreseeable future.

By 2019, DX investments will reach **$1.7 Trillion** Worldwide, a **42%** Increase from 2017

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The Move to the Digital Era

Digital transformation is part of the strategic agenda for business and IT executives alike. **Between 80%–90% of all large organizations embraced DX in 2017.** The rise of lean digital start-ups is already challenging incumbents in every sector, forcing them to not only embrace digital technologies and new business models, but also to reimagine their IT consumption and management models.

THE MOVE TO THE DIGITAL ERA
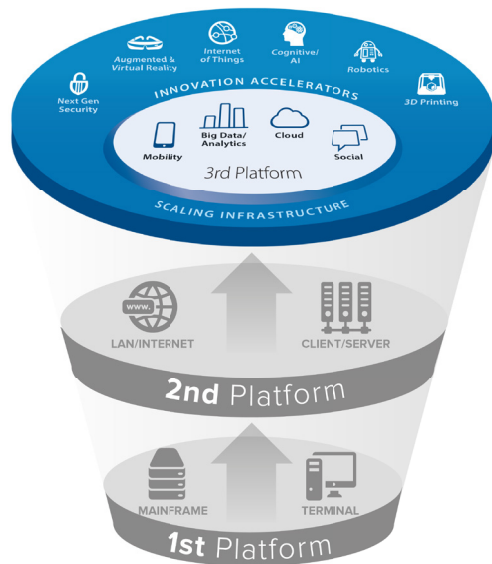
DIGITAL ERA

▸ Driving innovation
▸ Software and experience centric
▸ Business agility
▸ Naturally interactive and touch interfaces
▸ Anytime, anywhere

1ST AND 2ND PLATFORM ERAS

▸ Cost center, service center
▸ Hardware and systems centric
▸ IT agility
▸ Language and syntax heavy
▸ Wired networks and voice

Transforming IT: Everything as a Service

Worldwide spending on **public cloud** services is forecast to reach **$160 billion** in 2018, an increase of 23% over 2017

Software as a Service (SaaS) currently represents two thirds of all public cloud spending.

By 2022, **15%** of companies will have a multiple **Device as a Service** contract in place, with many moving beyond PCs, tablets, and smartphones to embrace categories such as wearables and AR/VR.
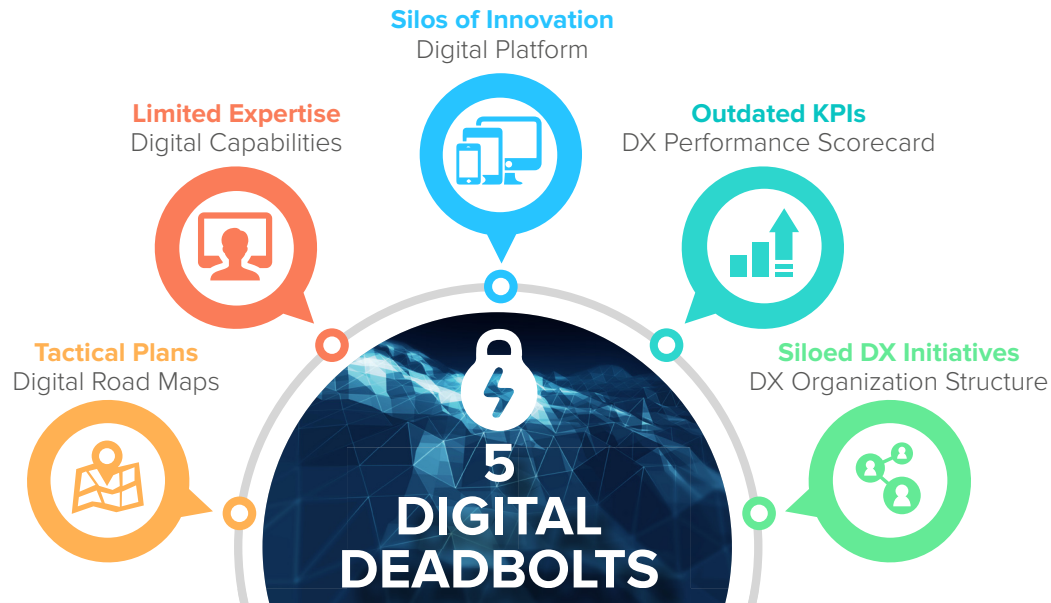
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While Organizations Are Investing in DX, a Majority Are Struggling with Execution

58%

IDC's 2017 Digital Transformation MaturityScape Benchmark study reveals that **58% of organizations** are **stuck in their DX journey.**

Digital transformation is no longer a theoretical topic but in execution across many organizations worldwide. However, although many organizations are executing digital projects and making progress, they are not digitally transforming adequately to move the DX needle organization-wide.

Top Reasons for DX Impasse

Silos of Innovation
Digital Platform

Limited Expertise
Digital Capabilities

Outdated KPIs
DX Performance Scorecard

Tactical Plans
Digital Road Maps

Siloed DX Initiatives
DX Organization Structure

5 DIGITAL DEADBOLTS

So, what is the way forward for Future of Work?

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Essential Guidance

Don't just look at the Future of Work as an automation or technology upgrade drive. Look instead at the bigger picture of new possibilities this can create for your organization. Creating a holistic Future of the Work strategy requires intimate collaboration between IT and Business. Such alignment is not end goal but a journey which needs constant readjustment to keep pace with changes in technology, talent needs and business strategy.

Workspace

It does not matter anymore where the work is done and how. It is more critical to empower employees with the right set of tools and technologies, and an enabling environment that fosters a digital-first approach. But while doing all this, ensure security and compliance.

Workforce

Explore areas for augmenting your workforce capabilities with emerging technologies, AI, and AR/VR, not just for productivity, but even for product and service innovations. It does not matter if the workforce is internal or external, it should be empowered.

Workculture

Create policies and structures that facilitate collaboration with the broader ecosystem. Focus on talent practices that attract and nurture the best talent and rewards innovation. Invest in your employees' wellbeing. Happy employees are creative, innovative and are more likely to stay.

FOCUS

Empower employees with not only the latest tools and technologies, but also modern designs that attract talent and provide them the freedom along with security.

Embrace new technologies that augment human capabilities to deliver greater productivity and efficiencies, as well as better outcomes.

Coherent brand identity in everything from technologies and devices to physical offices that foster collaboration and innovation.

IDC | ANALYZE THE FUTURE