The Impact of IR4.0 to Human Resource in Organization Environment

Anas Tajudin, PhD in Human Resources

Dean, Kuala Lumpur Metropolitan Business School

Kuala Lumpur Metropolitan University College

Malaysia

What is Human Resource Management?

Human resource management is the development and implementation of systems in an organization for attracting, developing and retaining a high-performing workforce.

Overall Framework for HRM

COMPETITIVE CHALLENGES

- Globalization
- Technology
- Managing change
- Human capital
- Responsiveness
- Cost containment

HUMAN RESOURCES

- Planning
- Recruitment
- Staffing
- Job design
- Training/development
- Appraisal
- Communications
- Compensation
- Benefits
- Labour relations

EMPLOYEE CONCERNS

- Background diversity
- Age distribution
- Gender issues
- Educational levels
- Employee rights
- Privacy issues
- Work attitudes
- Family concerns

What is Industry 4.0?

Industry 4.0 has been defined as **"a name for the current trend of automation and data exchange in manufacturing technologies, including cyber-physical systems, the Internet of things, cloud computing and cognitive computing and creating the smart factory"**.

How Will the Fourth Industrial Revolution Impact HR & Learning & Development in the Future?

Blackboard

Embracing New Technology

- **Knowledge Workers**
  - ➢ Workers whose responsibilities extend beyond the physical execution of work to include planning, decision making, and problem solving.

The Jobs Landscape in 2022

emerging roles, global change by 2022

133 Million

Top 10 Emerging

1. Data Analysts and Scientists
2. AI and Machine Learning Specialists
3. General and Operations Managers
4. Software and Applications Developers and Analysts
5. Sales and Marketing Professionals
6. Big Data Specialists
7. Digital Transformation Specialists
8. New Technology Specialists
9. Organisational Development Specialists
10. Information Technology Services

declining roles, global change by 2022

75 Million

Top 10 Declining

1. Data Entry Clerks
2. Accounting, Bookkeeping and Payroll Clerks
3. Administrative and Executive Secretaries
4. Assembly and Factory Workers
5. Client Information and Customer Service Workers
6. Business Services and Administration Managers
7. Accountants and Auditors
8. Material-Recording and Stock-Keeping Clerks
9. General and Operations Managers
10. Postal Service Clerks

Source: Future of Jobs Report 2018, World Economic Forum

"...the breadth and depth of these changes herald the transformation of entire systems of production, management, and governance."

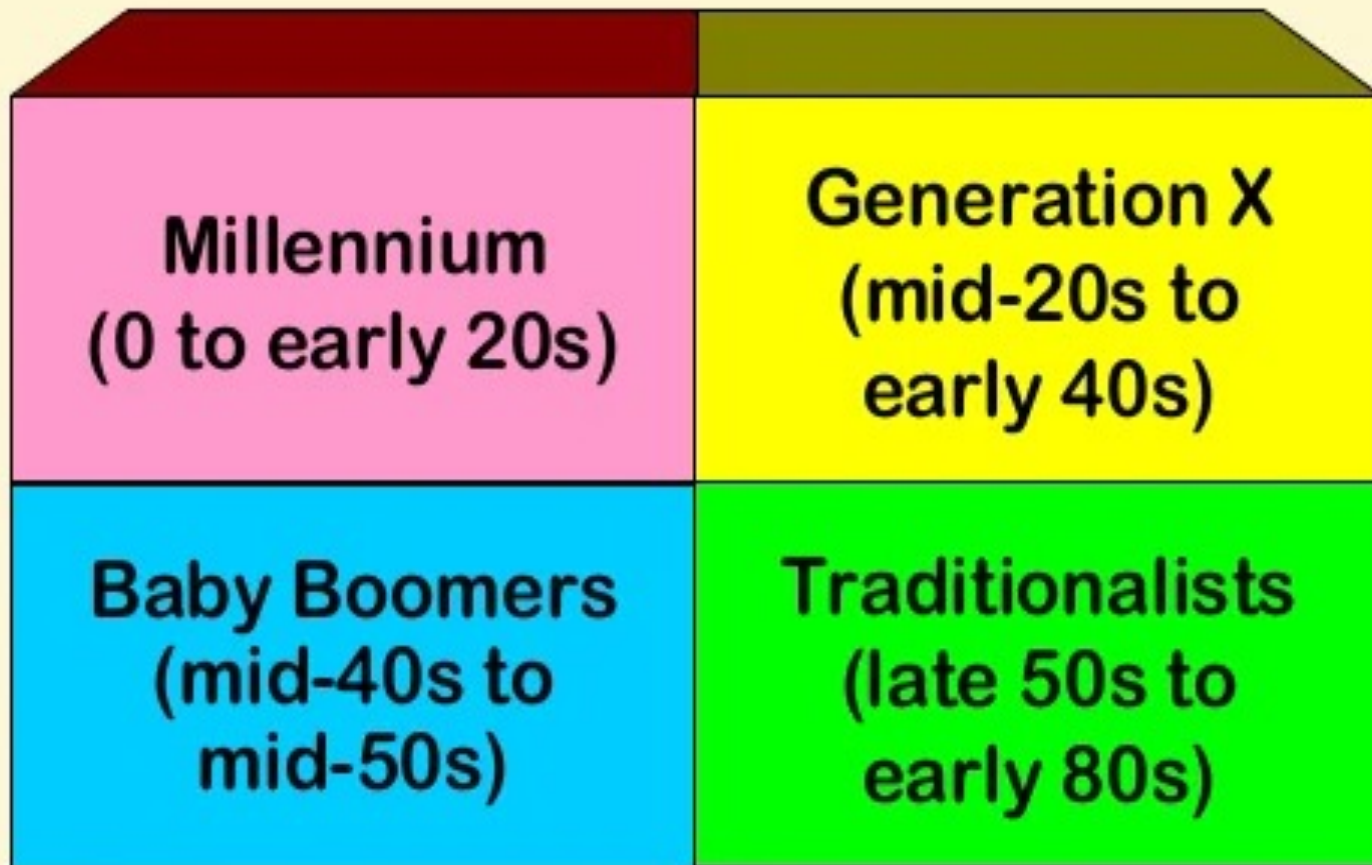Professor Klaus Schwab
Founder and Executive Chairman
of the World Economic Forum

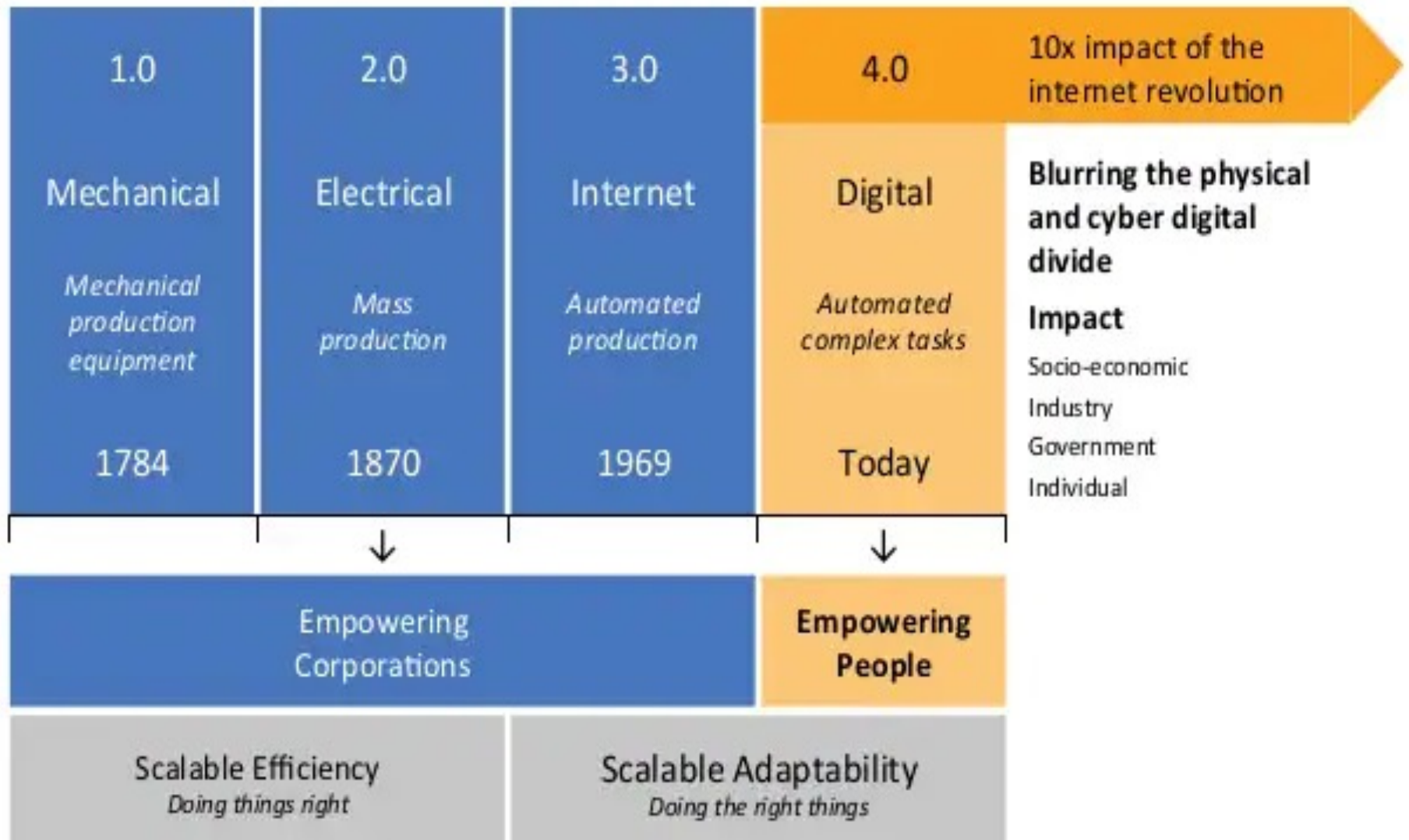# Different Generations of Employees Have Different Career Needs and Interests

Millennium (0 to early 20s)	**Generation X** (mid-20s to early 40s)
Baby Boomers (mid-40s to mid-50s)	**Traditionalists** (late 50s to early 80s)

Welcome to the IR 4.0

1.0	2.0	3.0	4.0	10x impact of the internet revolution
Mechanical	Electrical	Internet	Digital	**Blurring the physical and cyber digital divide**
Mechanical production equipment	Mass production	Automated production	Automated complex tasks	**Impact** Socio-economic Industry Government Individual
1784	1870	1969	Today	

Empowering Corporations	Empowering People
Scalable Efficiency *Doing things right*	Scalable Adaptability *Doing the right things*

Forces of Change

Demographics

- Millennials 50% of workforce
- Baby Boomers working longer

Technology

- Digital is everywhere
- Disrupting business models

Social Contract

- Altered employee/employer relationship
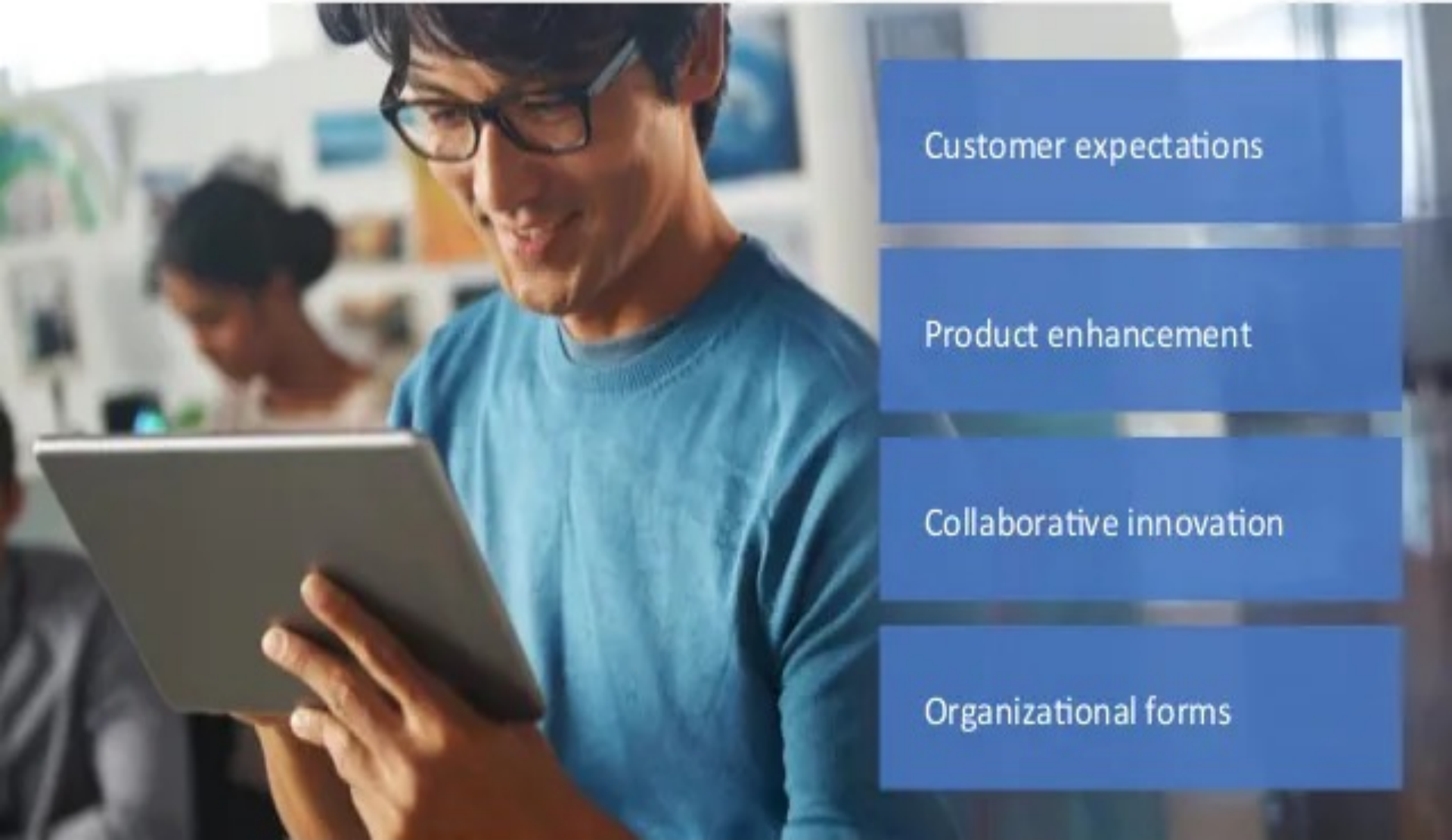- 2 yrs. is avg. job stay
- Rapid career growth

Speed of Change

- Computing power doubles every 2 years
- Organizations must be more agile

What Are the Implications for Business
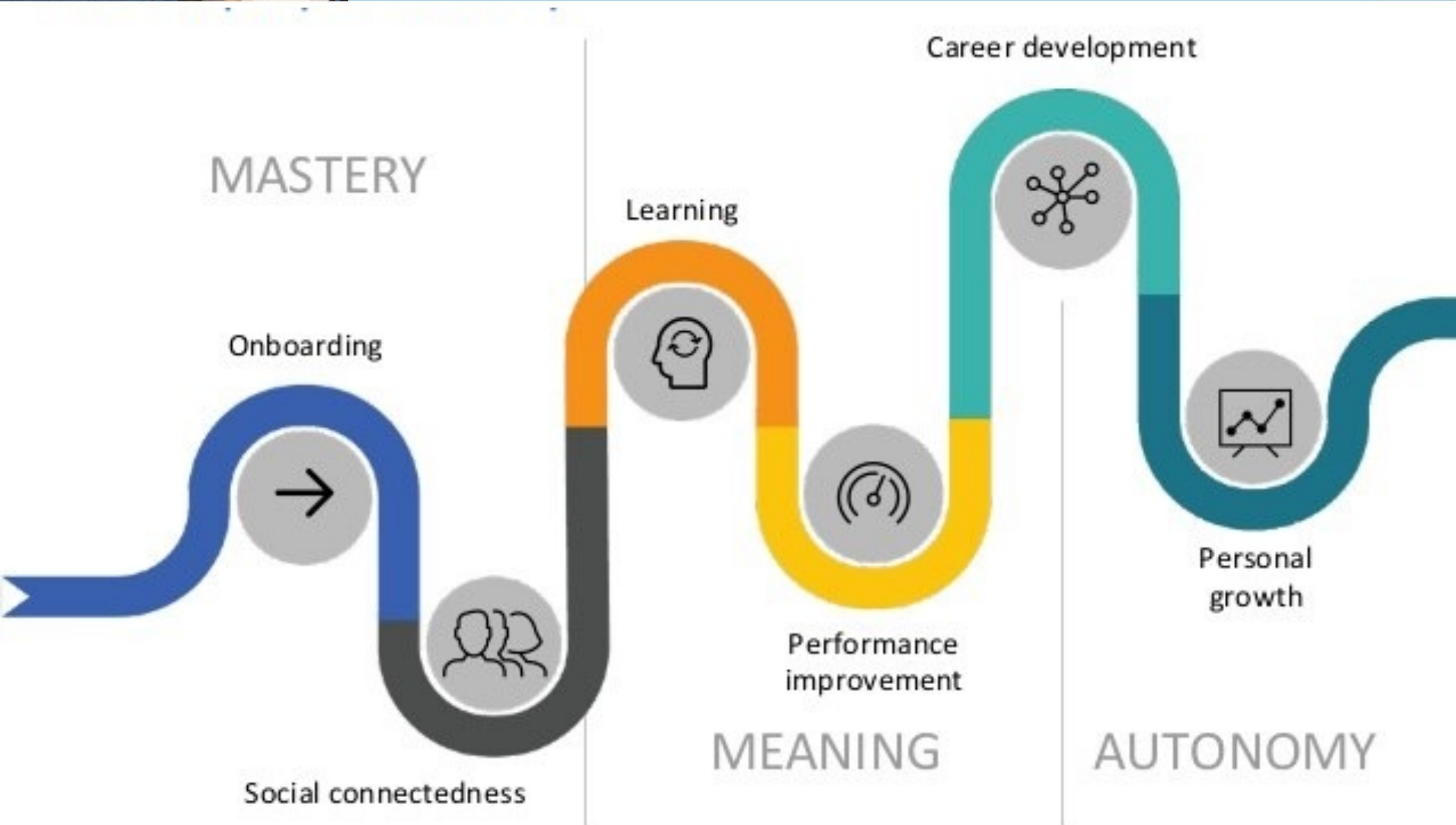
- Customer expectations
- Product enhancement
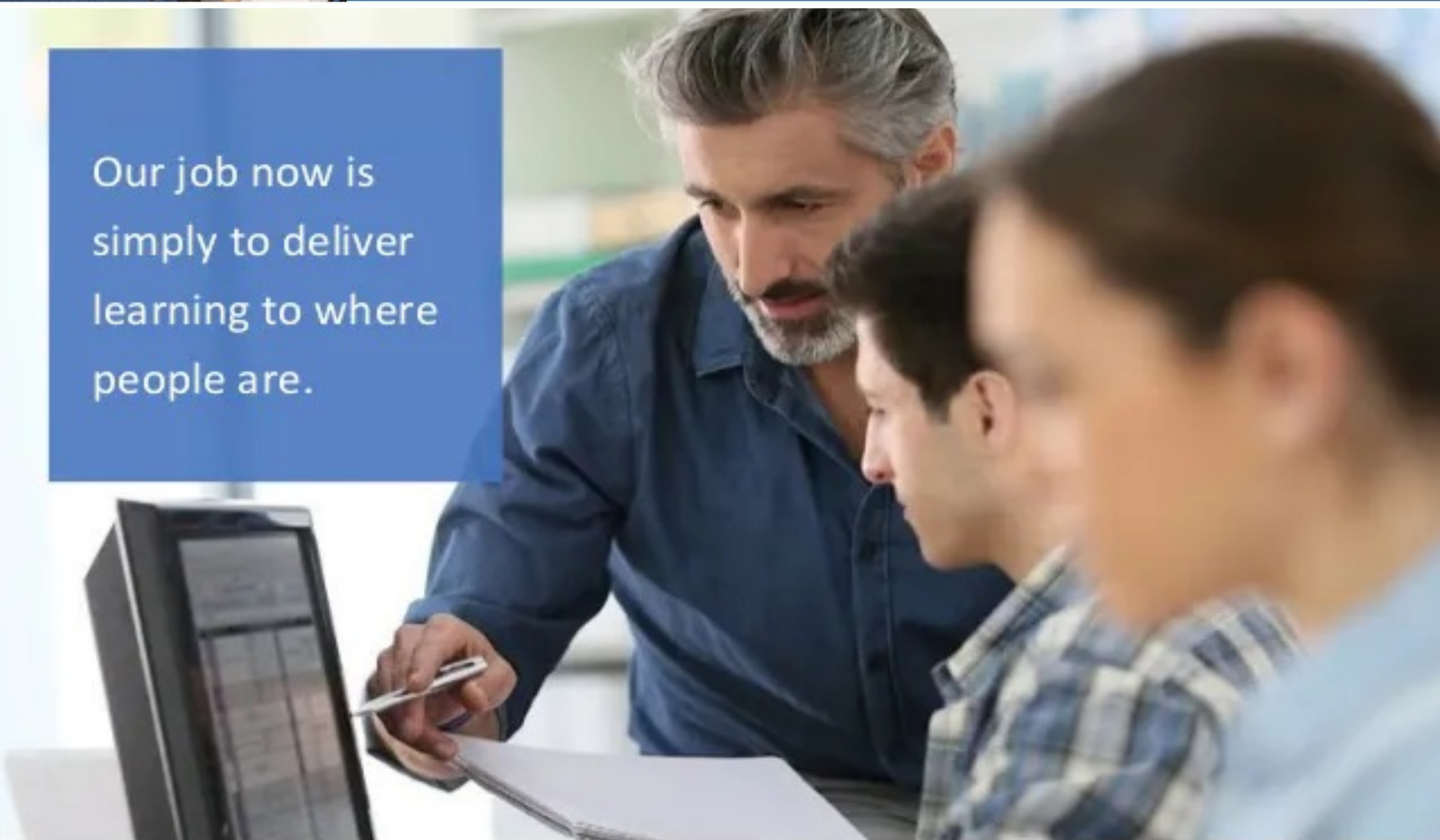- Collaborative innovation
- Organizational forms

"the emergence of global platforms and other new business models, finally, *means that talent, culture, and organizational forms* will have to be rethought. Bottom line: business leaders and senior executives need to understand their changing environment, challenge the assumptions of their operating teams, and relentlessly and *continuously innovate*."

The Employee Journey

MASTERY

Onboarding

Social connectedness

Learning

Performance improvement

MEANING

Career development

Personal growth

AUTONOMY

Our job now is simply to deliver learning to where people are.

Instructional Design

Experiential Design

From e-Learning to Digital Learning in One Generation

	e-Learning & Blended Learning	Talent Management	Continuous Learning	Digital Learning	Intelligent Learning
				We Are Here	
Formats	Course Catalog Online University	Learning Path Career Track	Video, Self-Authored Mobile, YouTube	Microlearning Real-Time Video Courses Everywhere	Intelligent, Personalized, Machine-Driven
Philosophy	Instructional Design Kirkpatrick	Blended Learning Social Learning	70-20-10 Taxonomies	Design Thinking Learning Experience	
Users	Self-Study Online Learning	Career-Focused Lots of Topics	Learning On-Demand Embedded Learning	Consumerlike Always On	
Systems	LMS as e-Learning Platform	LMS as Talent Platform	LMS as Experience Platform	LMS Is Invisible, Data-Driven, Mobile	
	2001	2005	2010	2017	2020

Quality Learning Matrix

Organizational Planning	Educational Practice	Technology Ecosystem	Learner Opportunities	Learner Success
Vision & Strategy	Curricular Design & Readiness	Platform Balance & Performance	Audience Identification	Registration
Management & Governance	Instructional Design & Course Development	Identities, Roles & Access	Learner Awareness & Opportunity Positioning	Learner Support & Help Desk
Program Development	Instructor Development & Support	Process & Data Integration	Marketing & Learner Identification	Risk Alerts, Intervention & Coaching
Business Model	Curricular & Instructional Innovation	Adoption & Use	Learning Opportunity Management	Pathway Planning & Course Scheduling
Analytics & KPIs	Assessment & Measurement	Operations & Service Delivery	Metrics & Reporting	Career Connections

Companies Are Realizing the Importance of Learning As an Integrated Element of Work....

Almost every
CEO and CHRO reports that their companies are not developing skills fast enough or leaders deeply enough

66%
expect to increase the number of formal learning hours/employee

About 40%
of CLOs say that their initiatives are either "ineffective" or "neutral" in assessing the capabilities and gaps of employees

This topic is
number two
on minds of CEO and HR leaders

83%
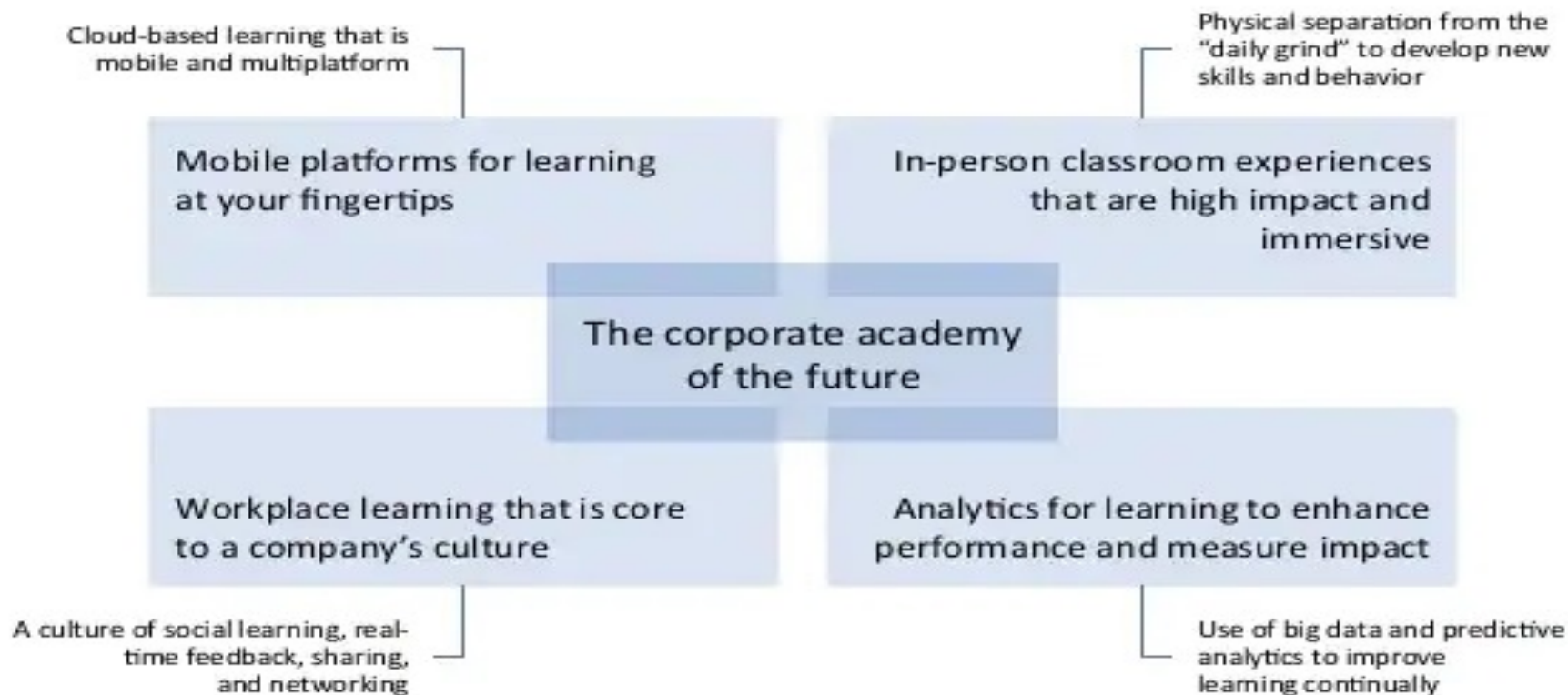of companies rate this issue as important and

54%
rate it as urgent

>60%
plan to increase L&D spending

Next Gen Corporate Academies

Cloud-based learning that is mobile and multiplatform

Physical separation from the "daily grind" to develop new skills and behavior

Mobile platforms for learning at your fingertips

In-person classroom experiences that are high impact and immersive

The corporate academy of the future

Workplace learning that is core to a company's culture

Analytics for learning to enhance performance and measure impact

A culture of social learning, real-time feedback, sharing, and networking

Use of big data and predictive analytics to improve learning continually

Forces of Change Supporting Organizational Learning

Demographics

- Younger employees feel the greatest comfort with digitization

Technology

- Cloud expansion = MOOCs, SPOCs, videos, learning games, e-coaching, virtual classrooms, online performance support and simulations
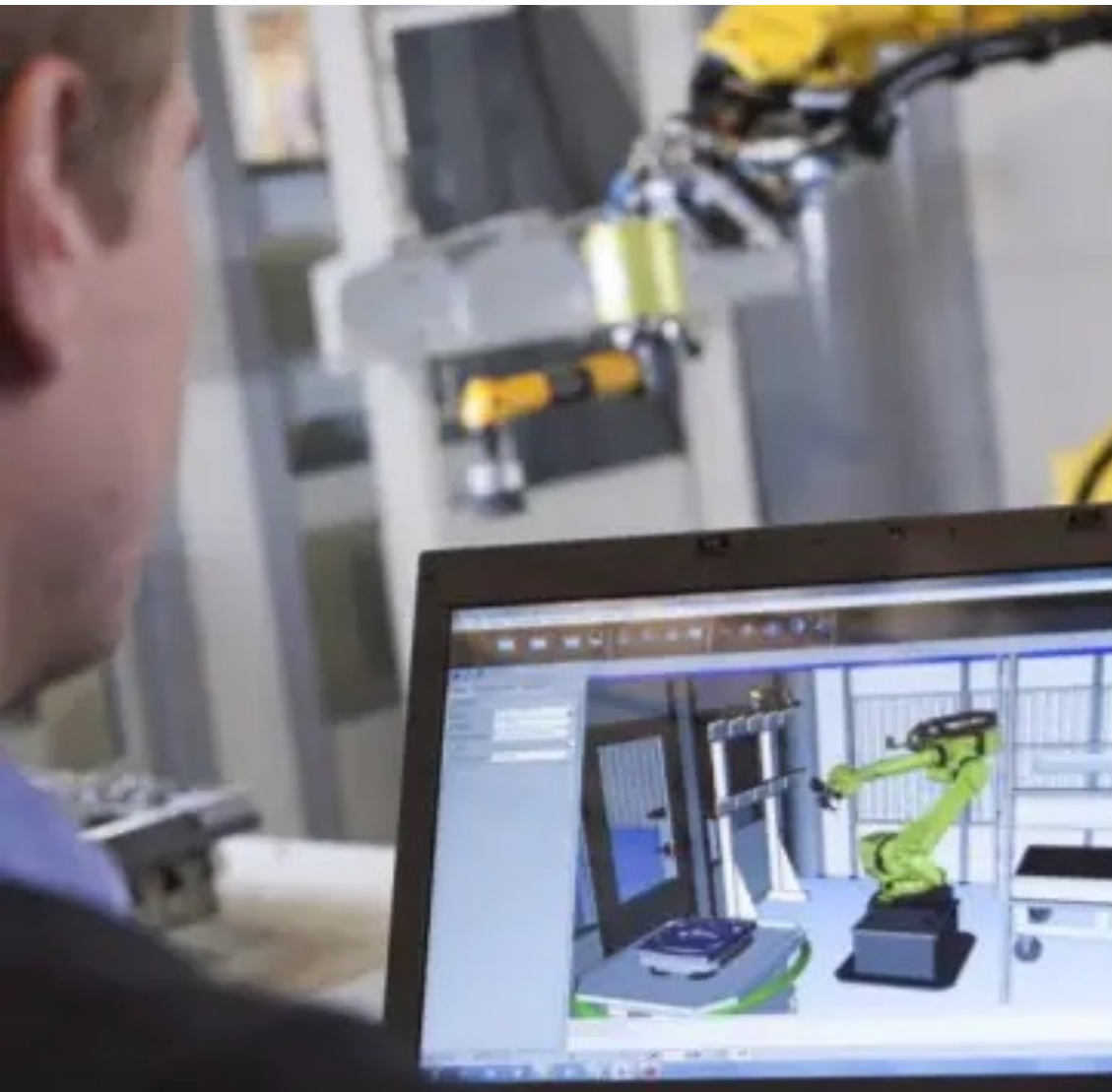
Social Contract

- Empowered learners share content and knowledge across companies
- Shared training

Speed of Change

- Flattened learning hierarchy sharpens messaging and broadens the pool of available content
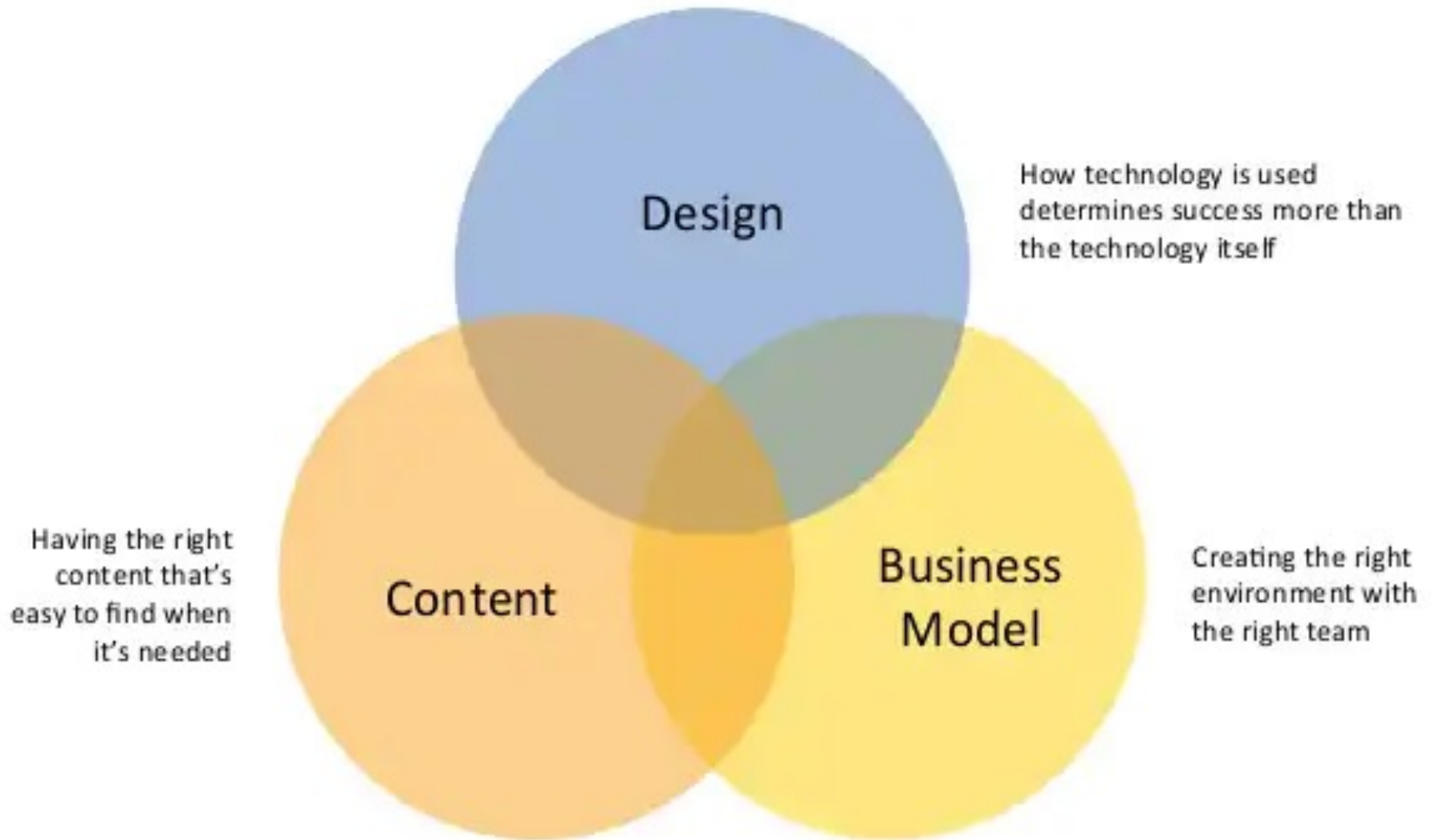
One global Asian original design manufacturer offers a digital 3-D learning environment at its virtual model factory. This system lets employee participants "see" and "feel" complex equipment deployed at many of the company's plants.

Where to Focus?

Design

How technology is used determines success more than the technology itself

Having the right content that's easy to find when it's needed

Content

Business Model

Creating the right environment with the right team

Design Thinking Focuses on Employee Experiences

Shift in Mindset from Solely Learning to a Performance Focus

L&D should be asking "what outcomes do we want and what does a great employee experience look like?"

People Generally Learn Best
When Their Learning and Their Work Are Aligned

Learning integrated with work will produce better results in terms of behavior change and performance improvement than when learning is entirely separated from work.

Greater Importance on Design Thinking Means Faster Organizational Growth

On-the-job vs. formal training impact: **3X** greater performance improvement

Exposure to on-the-job learning activities: increased engagement **2 ½ X**

Identifying Type of Content/Learning

Explosive Growth in Microlearning

Microlearning	Macrolearning
I need help now.	*I want to learn something new.*
Two minutes or less Topic- or problem-based Search by asking a question Video or text Indexed and searchable Content rated for quality and utility	Several hours or days Definitions, concepts, principles, and practice Exercises graded by others People to talk with, learn from Coaching and support as needed
Is the content useful and accurate?	*Is the author authoritative and educational?*
Video, articles, code samples, tools	*Courses, classes, MOOCs, programs*

Employees Are Overwhelmed...

The "average" U.S. worker now spends 25% of the workday reading or answering emails

The average mobile phone user checks the device 150 times a day

More than 80% of all companies rate their business "highly complex" or "complex" for employees

Of the U.S. population, 40% believes that it is impossible to succeed at work and have a balanced family life

Fewer than 16% of companies have a program to "simplify work" or help employees to deal with stress

The "average" U.S. worker works 47 hours and 49% work 50 hours or more per week, with 20% at 60+ hours per week

...and Spend Too Much Time Searching

39% — Knowledge workers spend **less than 40%** of the average work week on tasks specific to their jobs

14% — Communicating and collaborating internally

19% — Searching for and gathering information

28% — Reading and answering emails

1. Organization focuses on long-term career success of its workers

2. Organization focuses on enabling workers to perform well in current role

3. Organization employs design thinking in development opportunities

4. Organization offers high-value learning and development experiences

5. Organization rewards employees for development

6. Organization gives stretch assignments as part of worker development

7. Employees are able to influence which tasks are assigned to them

8. Organization is clear on decision-making processes/ability

9. Risk-taking is rewarded in the organization

10. Mistakes are valued as learning opportunities

11. Organization utilizes experiences for development

12. Organization gathers data on worker performance in several ways

What really matters

- Careers
- On the job
- Experiential
- Reward systems
- Empowerment
- Learn from mistakes
- Performance data
- Culture of learning

New Capabilities Needed

Traditional Learning Organization Capabilities

- Content Development
- L&D Performance Consulting
- Learning Delivery
- Learning Evaluation
- Division/Country Leadership
- LMS Administration
- Instructional Design

New/Enhanced Learning Organization Capabilities

Core
- Data Analysis
- Content Curation
- Experience Design

Strategic
- Experience Leadership
- Experience Management/Architecture
- Technology Tools & Leadership
- Branding & Communication

Enablers
- User Experience/Interface Design
- Multimedia Development
- App Development

Today	Tomorrow
Learning is a **series of corporate programs** built around L&D-designed content and L&D-approved experts.	Learning is an "**environment**" and an "**experience**," leveraging experts, content, and materials sourced and recommended by external communities as well as by other employees and internal experts (not just L&D).
The learning environment is managed by a **corporate learning management system**—essentially a large catalog filled with courses.	The learning environment feels like a **consumer website** that provides videos, courses, content, and access to experts—as well as recommendation engines that help people find precisely what they need.
L&D, business, and compliance **experts push out training**, identifying required courses to be completed by employees based on roles.	**Employees pull learning**, navigating and accessing opportunities from inside and outside of the company.
The focus is on **internal** training sanctioned by the company.	**External** training is available from any digital content source.
Learning professionals are **generalists** who do everything from design to development, logistics, and measurement.	Learning professionals are **specialists** who are excellent at the component they own.
Training follows a **lecture-based** model guided by an expert.	Training is **experiential**, relying on simulations, case studies, and flipped classrooms.
Employees **learn specific skills** through expert-guided instruction	Employees **learn how to learn** through facilitation and coaching.
Organizations create detailed, exhaustive, skills-based **competencies** that drive the learning agenda.	Organizations create high-level **frameworks** that outline broad capabilities.
The learning organization plays a **lead role** in what a person learns and focuses on delivering work experiences, interactions with others, and formal training in the traditional 70-20-10 ratio.	The learning organization plays a **supporting role** in what a person learns, expanding the 10 to include "inside" and "outside" learning; shifting the 20 to include internal and external networks; and redefining the 70 to include corporate, community, and social experiences.