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BIG IDEA

The Business Case for Dynamic Skills

Understand the Skills You Need to Survive and Thrive in an Age That Demands Resiliency

R "Ray" Wang
Principal Analyst and Founder

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The postpandemic world requires new levels of agility and resilience. Organizations must empower their employees and workers with the skills for digital proficiency. Success requires leaders to apply a dynamic skills approach to future-proof the workforce. Consequently, conversations with leading chief people officers and human resource professionals highlight the need to adopt a continuous learning approach as part of their human capital management strategy. In many cases, automation and artificial intelligence (AI) will provide the tools required to accelerate efforts.

Business Themes

New C-Suite	Future of Work	Technology Optimization

THE POSTPANDEMIC WORLD REQUIRES NEW LEVELS OF AGILITY AND RESILIENCE

From unforeseen crises to new work-life paradigms, the future of work has dramatically shifted. The matters of where we work, when we work, how we work, what we work on, and even why we work continue to face massive changes. Organizations must adapt or die. As a result, organizations and their managers face the following five challenges:

1. **New hybrid and return-to-work environments.** The notion of where and when an employee works has changed. After 12 to 18 months of remote work during the height of the COVID-19 pandemic, organizations must assess what kinds of roles and functions should be performed in the office and how frequently employees should work in the office rather than remotely. These implications will change learning and development programs.

2. **Accelerating demands from digital transformation.** Digital transformation requires new skill sets. Creating new digital channels, applying new business models, and designing new monetization models requires new skills. The need for data proficiency, machine learning and AI, design thinking, and new coding languages continues to grow. The ability to apply skill sets from a wide range of horizontal functions and industry expertise changes how organizations attract, retain, retrain, and advance talent.

3. **Greater automation in the workplace.** An impending talent shortage, increased regulatory oversight, and the high cost of labor will drive more automation in the workplace. Employees who work on highly defined and repetitive tasks face threats from automation. Workers must find ways to augment capabilities in concert with automation.

4. **Global competition for specialized talent.** Leaders expect to attract candidates with specialized skills and competencies from a global pool of talent. Organizations must provide internal capabilities for reskilling and retraining to augment needs for internal capabilities.

5. **Faster cycles of reskilling and retraining.** The pace of change has increased. From how to use data to improving communication skills on complex projects, workers need to quickly gain new skill

sets and competencies to manage change. Annual in-person training programs will not be enough. Organizations will have to adapt to how often employees acquire new skills and competencies.

BUILD THE NINE TYPES OF SKILLS THAT EMPOWER DIGITAL PROFICIENCY

Continued industry disruption, the need for business agility, rising labor costs, changing employee expectations, and skilled labor shortages drive organizations to rethink their strategies for both learning and development. Consequently, employers seek employees with skills that enable digital proficiency. Many employers have invested in a wide range of learning and development programs that reskill or retrain employees for digital success.

As these roles expand, the goal is to develop a proficiency in digital competencies. Constellation has identified nine skills that provide specific learned abilities required to perform a job. These digital skills, along with knowledge and ability in digital technology and processes, provide the "what." In aggregate, they also form the foundation for digital competencies that provide the "how." Mastering these key skills allows employees to incorporate them into behaviors needed to succeed in their jobs.

Every employer and employee should develop the following nine skills:

1. Technology Expertise

Digital competencies often rely on the use of technology. Technology expertise is the application of technical knowledge to organize information, enhance thinking, communicate and collaborate with stakeholders, and produce products and services. Skills include learning a coding language, configuring applications, developing solutions, testing solutions, certifying solutions, providing customer support, and using technology offerings to advance work.

2. Data Literacy

Data is the foundation of digital business. The ability to comprehend, analyze, manipulate, collaborate, share, and communicate with data drives data literacy. All levels of workers should be able to ask the

right questions of data and machines, build knowledge, make decisions, and communicate meaning to fellow employees, partners, suppliers, and customers.

3. Problem-Solving and Critical Thinking

Problem-solving and critical thinking is the act of taking a holistic approach to understanding a problem or topic thoroughly. Critical thinking starts with objectivity—the discipline of analyzing a problem without allowing emotion, personal bias, or preconceived assumptions to factor into that analysis. The key skills start with identifying a problem, researching it, and understanding why it exists and continue through developing a hypothesis, acquiring data, organizing findings, assessing previous solutions, crafting new solutions, and identifying improvements for an existing solution.

4. Creativity and Innovation

Thinking outside the box and applying existing innovations to new problems enables the transformation required to compete in the digital world. Although creativity and innovation often are seen as innate skills, workers can be taught to view familiar concepts through the lens of new perspectives. By understanding different techniques for viewing a problem, workers can discover new solutions. In addition, bringing the viewpoints of different disciplines into the equation can spark innovation as the intersection of different disciplines creates new ideas.

5. Multimedia Communication

Digital proficiency requires mastery of communication skills across multiple digital technology platforms. Video, audio, text, websites, social media, augmented reality, and even in-person communication all require different techniques and approaches.

6. Commercial Awareness

As every organization shifts to a digital approach, employees need to understand the nuances of supporting digital business models. In fact, digital is more than just a channel. Commercial awareness is about knowing when to play a role in supporting customer success, driving revenue, and furthering

the brand value. Along with digital business models, organizations and their employees need to develop monetization models such as ads, goods, memberships, search, services, and subscriptions.

7. Collaboration and Teamwork

Digital projects often require skill sets for supporting decentralized work environments, external partners, and outside consultants and advisors. Collaboration tools paired with open-mindedness, long-term thinking, adaptability, program management, feedback, and rules of engagement can help improve inclusion of ideas and efficient output. Sharing success and evaluating failures in a programmatic way can help create opportunities for continuous improvement.

8. Dynamic Leadership

The ability to create responsive and responsible leadership is a hallmark for success in digital transformation and jump-starting growth inside organizations. Dynamic leadership describes a model in which leaders follow a set of immutable traits and balance foundational attributes of leadership. This framework takes into account a multidimensional approach and addresses the challenges existing leadership models often neglect.

9. Career Management

Prioritizing the right decisions in managing careers requires self-awareness, curiosity, resilience, and employability. Managers should proactively engage employees to discuss their career plans. Workers should find the right skills to advance an interest, career, or project. Self-employment skills and labor market awareness help guide career paths and foster a continuous or lifelong learning approach.

A DYNAMIC SKILLS APPROACH CREATES FUTURE-PROOF WORKFORCES

With market conditions rapidly changing, leaders must find ways to ensure that employees have the required skill sets and competencies to succeed in their jobs. Constellation's recent conversations and surveys with HR leaders show that the number of skills required to complete work has increased by 55%

since 2010. On top of that, the half-life in value of professional skills acquired has dropped from 20 years to 10 years to five years over the past decade. This rapid degradation of skill sets and drop in relevancy results in a dearth of agility and resiliency. Hence, organizations that intend to survive and thrive must create the conditions for dynamic skills in the workplace.

As part of this approach, organizations must create a dynamic approach to skills and competency development. Success will require HR functions to sense demand signals for new skills, develop new skills in real time to support changing needs, encourage employees to quickly gain new skill sets, determine which skills and competencies to remove from the portfolio, and automate the process for augmentation with AI. The following are the steps to building a dynamic skills approach:

- **Conduct an enterprisewide skills assessment.** Maintain an understanding of the skills that exist within an organization. Provide real-time updates and modify as conditions in the workforce, business environment, and business models change.

- **Apply skills assessment knowledge across talent processes.** Organizations should tap into internal talent. Knowing the key skills required for success on a job ahead of time can accelerate the identification of internal talent for new roles as well as identify skills gaps inside the organization.

- **Sense demand signals for new skills.** Organizations must anticipate skill shifts. Demand signals include monitoring the top skills in learning management platforms such as LinkedIn Learning, Pluralsight, Udacity, and Udemy. Other demand signals include recruiting boards and conversations with talent networks and recruiters.

- **Encourage employees to maintain up-to-date profiles.** Conduct periodic programs to update employee profiles and highlight new skills. Up-to-date, accurate profiles enable employees to be considered for new opportunities.

- **Develop new skills in real time to support changing needs.** Classic approaches to learning and development and corporate training is not enough. Organizations need to create programs that can deliver rapid and more frequent training that goes beyond

training libraries or didactic training sessions. New experiential learning and train-the-trainer classes may accelerate content creation.

- **Encourage employees to quickly gain new skill sets.** Create a culture that supports rapid learning. Organizations should reward those who gain new competencies with more challenging and lucrative positions.

- **Determine which skills and competencies to remove from the portfolio.** Taking a portfolio approach on which skills and competencies are important and which are not will enable organizations to dynamically prioritize and improve reskilling and retraining rates.

Use Automation and AI to Accelerate Efforts

The steps to taking a dynamic skills approach outlined above form a starting point, but they can require manual efforts that are cumbersome. Maintaining a baseline understanding of an organization's current state of skills is the largest hurdle, given how quickly the workforce, business requirements, and nomenclature of skills evolve. Modern applications can now automate and augment these approaches with AI to improve speed and accuracy. By bringing in inputs spanning internal job profiles, talent profiles, performance interactions, and recruiting tools—and connecting these data points with external job and skills data—organizations can assess their unique set of skills in real time. This insight can then enable automated recommendations across talent processes, such as suggesting relevant learning to support an individual's career growth. As the need to address shifting skill requirements continues to rise, technologies that support the assessment of organizational skills and the resulting actions will become increasingly critical.

INSIDE THE BENEFITS OF A DYNAMIC SKILLS APPROACH

Organizations that have implemented a dynamic skills approach have seen overall benefits from improved employee experience, increased retention, greater satisfaction, higher productivity, and growing competitive advantage.

- **Improved employee experience.** Smart leaders use dynamic skills as an incentive in recruiting talent and build these offerings as part of the overall employee experience portfolio along with benefits, mentorship, and other perks.

- **Increased retention.** Turnover is expensive. Organizations lose anywhere from 7% to 13% in productivity when an employee leaves. The training time and onboarding costs slow down an organization's productivity. A dynamic skills approach keeps employees engaged and helps workers achieve their full potential.

- **Greater satisfaction.** Providing a dynamic skills approach and a culture of continuous learning improves overall employee satisfaction. Employees seek opportunities to learn a wide range of skills and competencies. Learning becomes a reward and an opportunity for advancement.

- **Higher productivity.** A common approach and better skills can improve employee performance. Employees will not only drive productivity but also may suggest new opportunities for accelerating productivity.

- **Growing competitive advantage.** The ability to create, deliver, and consume a dynamic skills approach provides organizations with the agility and resiliency needed to compete in the digital world.

THE BOTTOM LINE: ORGANIZATIONS MUST BUILD A CONTINUOUS LEARNING CULTURE

Organizations that prepare for dynamic skills often incorporate a continuous learning or "lifelong" learning approach. By always expanding their workers' knowledge, helping them gain new skills, and curating new experiences, organizations can create the conditions for adaptation, skills sharing, career fulfillment, and improved employee experience.

Constellation recommends that organizations implement a program with the following 10 steps to create the conditions for empowerment:

1. **Start with a life plan.** Individuals should take the time to prioritize key actions based on the current state and desired state in their lives, identifying the skills and competencies required to achieve their "life plan." One approach to writing a life plan is to have employees begin by writing their own obituary and then work backward with a vision statement describing how they will achieve each priority within a given period of time.

2. **Take a holistic approach, and ensure employees make time for themselves.** A key requirement for achieving the life plan is for individuals to dedicate time for themselves. Organizations can encourage or set aside from 30 minutes to two hours a week for employees to focus on executing goals toward their life plan. Identify courses, curriculum, or mentors to help them achieve these goals.

3. **Stay curious.** The constant desire to ask "why" or understand how something works is part of the human spirit of exploration. Remaining teachable enables self-development and the openness to try new experiences, learn new concepts, and revisit existing approaches for the purpose of improvement. Organizational leaders need to take the time to explore what skills and competencies are out there.

4. **Design for digital artisans.** Programs should encompass both left-brained and right-brained thinking. Organizations with an emphasis on science, technology, engineering, and math can also benefit from more social sciences, creativity, art, philosophy, and ethnography. This balance creates catalysts for innovation and creativity. Explore which skills and competencies will create a more rounded repertoire.

5. **Lead by example.** Organizational leaders should take the time to implement their continuous learning plan. Leaders who take the time to share their own personal life plan, prioritize time off for their self-development, and encourage others to pick up new skills and competencies go a long way toward fostering the continuous learning culture.

6. **Foster group learning.** Group learning improves collaboration and cooperation skills. By encouraging groups within their organizations to learn new skill sets, solve problems, create products, and design

solutions, leaders can reinforce the culture of continuous learning. Organizations should provide employees a regular cadence for learning new skills and competencies.

7. **Assess the organization's existing baseline skills and competencies.** HR and learning and development leaders should identify which skills are in demand and the organization's capabilities for meeting that demand. They should create an action plan for closing any organizational gaps on a regular basis.

8. **Include new skills and competencies based on interest.** Leaders and managers should work with team members to identify demand for key skills and competencies desired by employees as well as by the organization. These courses and training opportunities should be dynamically prioritized for availability and should be periodically updated.

9. **Encourage others to love learning.** Celebrate success as employees learn new skills and competencies. Craft the love for learning into plans for employee experience, recognition programs, and review cycles.

10. **Take advantage of the mobility and opportunity around you.** Provide opportunities for employees to advance into new career opportunities based on the skills and competencies they have developed. Encourage managers to seek talent and provide reskilling and retraining opportunities to promote internal advancement.

PARALLAX POINT OF VIEW
Holger Mueller, Vice President & Principal Analyst at Constellation Research
The Business Case for Dynamic Skills

Enterprises have known about the value of skills for a long time, associating to every position a certain number of critical skills. Typically with new hiring, skills get reviewed and implemented into a job description. Unfortunately, it often ends with this static approach. The result is that skills required in job descriptions typically are stale and do not reflect the real-world skill demands for a position. Every few years, enterprises go on a "skills drive" that takes multiple months to complete, only to then fail to do anything with the data going forward and basically watching it stale again.

In the ideal world, enterprises would run a virtuous cycle between the following talent management functions:

- **Performance management establishes the good, the bad, and the ugly.** Performance management, typically conducted on a regular interval and ideally practiced continuously, determines how well an employee is doing. Good managers will see which skills employees might struggle with, which skills they need to acquire, and which skills they may have developed that can make them successful in their current job.

- **Learning is the skills augmenter.** Learning systems are the place where employees are able to augment their skills—ideally in a self-driven approach. But mandatory learning courses and certifications also are available and effective. Last but not least, organizations can promote external training to help employees augment their skills.

- **Compensation management puts a price tag on skills.** Enterprises need to know what to pay for a certain position, and that is determined by the individuals who are successfully filling that position. The combination of their skills and personal traits sets the compensation for the position—and with that puts a price tag on skills.

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- **Recruiting provides a fresh look at skills.** Enterprises hire with a job description—which contains the skills needed to be a successful candidate for that position.

- **Career planning drives skill needs.** Employees want to advance and plan their careers. To qualify for the next career position, they need to acquire, deepen, and learn new skills, but also unlearn skills that are no longer needed or required.

So, if skills are so well understood, why is it so hard to keep them relevant? Wang is on the right path here, asking for a less static and more dynamic skills approach. It is no longer about documenting and cataloging all the skills of an enterprise, but rather the realization that skills are a fluid set of people capabilities that come and go, morph over time, and need to be understood as a data stream rather than a dataset.

Going forward, the following additional phases will be required for more dynamic skills management:

1. **Near-term, it is all about the WIIFM factor.** Hopefully, software innovation will make the "what's in it for me" (WIIFM) factor more tangible for employees, allowing them to directly see that maintaining their skills is necessary not only to satisfy another headquarters-mandated project, but also to help them be more successful at their work (see performance management), get them paid better (see compensation management), allow them to influence the learning offerings available (see learning management), qualify them for new job opportunities (see recruiting/internal job markets), and advance their careers (see career planning).

2. **Long-term, it is all about the implicit recognition of skills.** Longer-term, and as enterprises increasingly move to electronic work, employees are creating more digital artefacts and digital exhaust, and their skills will be defined implicitly, as a byproduct of work. For example:

- **Is Microsoft PowerPoint a critical skill for sales reps?** The skills management system of the future will recognize that an employee creates a lot of PowerPoint slides, it will recognize from travel receipts that these are used in customer presentations, it will see which presentations resulted in more successfully closed opportunities, and then it will determine the influence of PowerPoint skills on sales success. If there is a clear

correlation, the system will prioritize the PowerPoint skills higher in performance management conversation, introduce those skills to career planning processes, insert them in job requirements for recruiting, and suggest PowerPoint courses in training systems.

- **Do team composition and skills affect production quality?** A car manufacturer analysis of car production quality might trace the results back to the skills of the workers in charge of individual vehicles. Quickly, it can identify which skill differences might exist among the teams. By mixing the teams in upcoming shifts based on their skills composition, the car manufacturer can test which skills are relevant—and, based on the results, train those who lack those skills. With psychographic information on team members as well as productivity and quality records, the car manufacturer can test and validate which personalities form the more successful teams and allocate teams based on the profiles as well as establish whether the right personality profiles are being hired.

- **How can the organization best lift digital proficiency and productivity?** A future skills management system will look at employees' email behavior and distill the more successful employees, comparing email and overall collaboration style with work success from objective performance numbers as well as performance reviews. The result will be to identify any skills gaps of less successful employees, the need for training, changes in tooling and platforms that may be necessary, as well as which productivity products employees should use.

At the end of the day, the Infinite Computing[1] reality will change skills-based systems quickly. Overabundant and cheap compute from the cloud will let enterprises build these new, autonomous skills systems that make the explicit skill collection drive an effort of the past. In time, today's models will look as old-fashioned to people as a fax machine looks in 2021.

ENDNOTES

[1] *Mueller uses the term "Infinite Computing" to describe how computing resources have practically become infinite for enterprises' purposes, effectively eliminating the need to size hardware resources. For more details, see: Holger Mueller, "The Era of Infinite Computing Triggers Next-Generation Applications," Constellation Research, June 1, 2018. https://www.constellationr.com/research/era-infinite-computing-triggers-next-generation-applications*

R "Ray" Wang

Founder and Principal Analyst

R "Ray" Wang is founder, chairman, and principal analyst of Constellation Research Inc. and author of the popular enterprise software blog, A Software Insider's Point of View. He previously was a founding partner and research analyst for enterprise strategy at Altimeter Group.

A background in emerging business and technology trends, enterprise apps strategy, technology selection, and contract negotiations enables Wang to provide clients and readers with the bridge between business leadership and technology adoption. Wang has been recognized by the prestigious Institute of Industry Analyst Relations (IIAR) as Analyst of the Year, and in 2009 he was recognized as one of the most important analysts for enterprise, SMB, and software. In 2010, Wang was recognized on the ARInsights Power 100 List of Industry Analysts and named one of the top influential leaders in the CRM Magazine Market Awards.

Wang graduated from Johns Hopkins University with a B.A. in natural sciences and public health. His graduate training includes a master's degree from Johns Hopkins University in health policy and management and health finance and management.

🐦 **@rwang0**   💻 **constellationr.com/users/r-ray-wang**   in **linkedin.com/in/rwang0**

ABOUT CONSTELLATION RESEARCH

Constellation Research is an award-winning, Silicon Valley–based research and advisory firm that helps organizations navigate the challenges of digital disruption through business model transformation and the judicious application of disruptive technologies. Unlike the legacy analyst firms, Constellation Research is disrupting how research is accessed, what topics are covered, and how clients can partner with a research firm to achieve success. Over 350 clients have joined from an ecosystem of buyers, partners, solution providers, C-suite, boards of directors, and vendor clients. Our mission is to identify, validate, and share insights with our clients.

Organizational Highlights

· Named Institute of Industry Analyst Relations (IIAR) New Analyst Firm of the Year in 2011 and #1 Independent Analyst Firm for 2014 and 2015.

· Experienced research team with an average of 25 years of practitioner, management, and industry experience.

· Organizers of the Constellation Connected Enterprise—an innovation summit and best practices knowledge-sharing retreat for business leaders.

· Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.

	www.ConstellationR.com		@ConstellationR
	info@ConstellationR.com		sales@ConstellationR.com

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