Digital HR Emerging Technology Trends

TOPICS COVERED IN THIS CHAPTER

- Recruiting technologies and innovative alternatives
- Workforce management and service delivery
- Workforce management and learning technologies
- Supporting remote and hybrid work
- Maintaining wellbeing in the workplace

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The data from 2020 to 2022 shows an altered picture of reality. Here is a snapshot of some of the major shifts during this timeframe:

- **Skills Revolution:** While we have known that employees need to update their skillsets, the pandemic highlighted that 58% of the workforce needs new skills to do their jobs.²⁰⁹
- Recruiting Challenges: "Nearly nine in 10 (89%) [of] employers said recruiting and hiring will be either 'somewhat' or 'very' challenging, making the tight labor market and Great Resignation even more challenging for the recovering U.S. economy."²¹⁰
- Labor Shortage: As of June 2021, 91% of state and local Chambers of Commerce say worker shortages are holding back their economies.²¹¹
- "Great Resignation": According to the Bureau of Labor Statistics as cited by SHRM, "The last 10 months of 2021 saw the largest exodus of employees on record."²¹²
- **Job Openings:** Per the JOLT report from the Bureau of Labor statistics, as of January 2022 the number of job openings is 11.7 million, boosting pressure on recruitment.²¹³
- Employee Engagement and Overall Wellbeing: There is a clear relationship between employee engagement and employee wellbeing. Gallup polls indicate that U.S. employee engagement dropped in 2021 for first time in a decade.²¹⁴

Consider the demands for new leadership approaches, an employee-centric shift, and changing cultural demands, and what you have is the need for a major workplace adjustment. As Peter Quigley, the CEO and President of Kelly Services, says most succinctly, employees are bringing their consumer

expectations to the workplace. They require that their work experience be personalized. The consequence is this: "The best employers are the ones who spend as much time on the employee experience as they do on their customer experience." According to CEO Quigley, employers must realize that "this Great Resignation is less about people leaving as much as it is people recalibrating what their work-life integration should be." ²¹⁶

Consequently, there must be an adjustment to the "new order" or "new normal" that impacts how technology is used. What are the current trends in digital HR? And what technology modifications must we make to succeed?

The Purpose of This Addendum

It is the purpose of this Chapter 18/Addendum to highlight powerful, evolving digital strategies that address five specific areas relevant in the post-pandemic economy. While addressing these five areas you will find current best practices based on research (2021-2022), use cases, references back to information in this text Digital HR (Waddill, 2018), questions for digital strategy implications, and "Tips and Tools."

The five areas of focus are:

- 1. Recruiting Technologies and Innovative Alternatives
- 2. Workforce Management and Service Delivery
- 3. Workforce Management and Learning Technologies
- 4. Supporting Remote and Hybrid Work
- 5. Maintaining Wellbeing in the Workplace

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RECRUITING TECHNOLOGIES AND INNOVATIVE ALTERNATIVES

We face significant recruiting obstacles in the present business environment. Recruiting is incredibly challenging, especially now. Recruiting must continue to adapt to the "new normal" hiring conditions. The good news is that recruiting can benefit from creative uses of Artificial Intelligence and the Virtual World as well as innovative approaches to unearth new talent.

Recruiting with Artificial Intelligence

Artificial Intelligence (AI) is nothing new with regards to hiring/recruiting technology. AI has become more useful, especially when embedded in current e-recruiting and Applicant Tracking Tools. AI eliminates some of the time-consuming recruiting tasks –for instance, skill identification and background checking. In fact, cloud vendors like Jobvite and Oracle use digital assistants, chatbots and other technologies to do just that. In fact, Oracle is using AI in its Oracle Recruiting Human–Resources Software to automatically winnow large funnels of candidates down to a shortlist.²¹⁷

E-recruiting enabled by AI is powerful. AI offers a competitive advantage when looking for talent. As noted in this text, IBM uses AI to identify applicant skills and makes job recommendations within the organization where the applicant's skills would best fit. (See IBM Use Case, Digital HR, pp. 202-204).

Ensure that the recruiting, applicant tracking, and onboarding tools are (a) cloud-based, (b) mobile-accessible, and (c) gather data for suitable analysis and decision-making. Current best practice is to vet and match candidates based on skill sets necessary for a job rather than experience or educational pedigree.

Test the Technology

While Artificial Intelligence is very effective, it has its limitations. When using AI, it is important to test or audit the AI to ensure that the algorithms align with strategic goals and objectives of your organization and Equal Employment Opportunity Commission rights. Additionally, ensure the outcomes show alignment with diversity, equity, and inclusion (DEI) initiatives. To that end, AP News in November of 2021 says to expect in the future a technology "bill of rights" or similar initiatives to protect against harmful or faulty uses of AI.²¹⁸

Recruiting and Virtual Worlds, Virtual /Augmented Reality

In addition to AI, many recruiters are interested in the possibilities offered in the virtual world. This is not a new concept, but the process has changed. In the book preceding this one, *The e-HR Advantage*, Second Life showed promise for use with hiring. (Waddill & Marquardt, 2011, pp. 41-43) There are benefits and disadvantages to embracing the virtual world for recruiting purposes.

Recruiting and the Virtual World

Virtual worlds allow for potential candidates to be given recruiting scenarios, have conversations with the recruiter, use simulations, and demonstrate skills. One such tool is Microsoft Teams' Mesh, announced in March of 2021. The purpose is to provide better mixed reality experiences across not only AR and VR headsets, but also mobile and desktop. Mesh is built on Microsoft Azure which enables developers to build immersive, multiuser, cross-platform mixed reality applications.²¹⁹

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In this particular virtual world, individuals use *avatars*—virtual representations of themselves, customized to appear as they wish. Participants can also use *Holoportation* to project their avatars as their most lifelike, photorealistic 3-dimensional self in mixed reality. This allows users to interact as if there in person.

In Microsoft Teams Mesh, all participants have access to the full suite of Microsoft Teams products such as virtual meetings, chats, document collaboration, etc.²²⁰ The synchronous aspect of virtual worlds and the visible presence of the candidate provide recruiters with the fluid in-person advantage of asking questions, interjecting challenging scenarios, using simulations, and at once receiving the candidates' responses while feeling like you're in the same place.²²¹

Drawbacks in Virtual World Recruiting

There are also drawbacks to using the virtual world for recruiting. These have been present since virtual worlds first appeared. Those include:

- Reinforcing the so-called "digital divide": Virtual worlds require highend equipment, networks, and connectivity (5G) that may not be available or affordable or available for all applicants.
- Steep learning curve for applicants: Acuity as a participant may favor those
 who are already accustomed to the virtual world, gaming, or programming.
- *Finding secure spaces*: How do you prevent others from barging in on the conversation?
- *Lawlessness:* Virtual worlds are unregulated. This can present a major problem for personal information and safety.

Recruiting and Virtual/Augmented Reality

Virtual Reality (VR) and Augmented Reality differ from virtual worlds. According to TechTarget, *Virtual Reality* is "an artificial environment that is created with software and presented to the user in such a way that the user suspends belief and accepts it as a real environment. On a computer, virtual reality is primarily experienced through two of the five senses: sight and sound."²²² The environment is presented in such a manner that it looks and appears 3-D and feels like a 3-D world, typically through use of a headset although it can be seen on computer.

Augmented reality (AR) is the overlaying of computer-generated objects upon pictures from the real environment. The application recognizes some element in the real environment and then places objects in relation to it with differing levels of interactivity. Headsets are unneeded and it is accessible from the user's smart phone. ²²³

Applications for VR and AR to recruiting abound. VR and AR can be the visual "entryway" to viewing an organization's culture as perceived in the artifacts and architecture as well as office layout. It can be used to build engagement and make recruiting smarter, simpler, and faster.

Organizations such as MGM are using Virtual Reality now to allow applicants to try out casino and hotel jobs in virtual reality (VR) before signing on. ²²⁴ Taking a VR or AR walkthrough of office space can replace the traditional walkaround. Using AR and VR companies can create a life-like simulation of how a typical workday plays out. Virtual capability assessment can be used to introduce a situation of stress or other environmental challenges and help screen out those who are unfit for the position. These are just a few useful applications. However, there are also disadvantages to VR/AR.

Drawbacks to VR and/or AR

Some of the same technology restrictions as those found with virtual worlds pertain to VR/AR. There is a significant investment in hardware and programming. People get tired of wearing and can become disoriented using the VR headsets. Additionally, low resolution and large file size to begin can be a disadvantage to VR.²²⁵ The network can inhibit use of AR. Finally, the technology itself may be a barrier to use by certain cultural, economic, and generational groups.

Recruiting for Skills

With the Skills Revolution and redefinition of jobs in terms of required skill sets rather than experience, many organizations are using skills-based matching during recruiting. Skills testing presents a suitable way to vet and place applicants. This is an approach that assesses candidates based on their holistic skill set. It offsets the usual reliance upon industry experience or certain educational credentials/pedigree.

When recruiting for skills, adjacent skills are also critical to examine. A Gartner report published in December 2020 defined *adjacent skills* as "skills related to other skills in one way or another." Machine learning or artificial intelligence tools can be used to collect, analyze, and identify skills and skill adjacencies.

To hire for core skills and adjacent skills, build internal capabilities and tools to enable skills-based hiring. HR should partner with the business to discuss critical skills required for the jobs to be done. Use AI to find adjacent skill pools for in-demand roles. And use a talent-management system that can infer adjacent skills to end guesswork. For example, <u>Career Exchange</u> (eightfold.ai/career-exchange), a digital talent marketplace, allows companies

to look outside typical talent sources through an AI-based algorithm that matches people to jobs based on their skill fit.²²⁷

Recruiting and Alternative Talent and Digital Resources

Your organization may try to entice the best and the brightest through standard thoroughfare of benefits, salary, promotional paths, etcetera, but that is not enough anymore. The "Great Resignation," the tight labor market, and the competition for skills gave rise to exploring alternative pools of talent. These include gig workers, retirees, undergraduate college students, veterans, and the previously incarcerated. Before pursuing these options, an organization's culture must support such innovative hiring practices.

Companies that wish to grow must hire people from various educational, socioeconomic backgrounds as well as people with diverse beliefs. Diversity, equity, and inclusion (DEI) hiring practices have positive results. In particular, the organization benefits from workers with varied skills, capabilities, and experience as well as wide-ranging viewpoints and perspectives. These can feed innovation. To pursue diversity and inclusion through recruiting, here are some options.

Gig Workers

What is a gig worker? Gig workers are independent contractors or freelancers who typically do short-term work for multiple clients. The work may be project-based, hourly or part-time, and can either be an ongoing contract or a temporary position.

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Here are a couple interesting statistics about gig workers:

- Thirty-six percent of U.S. workers participate in the gig economy through either their primary or secondary jobs. 228
- Seventy-six percent of gig workers say they are very satisfied with their choice.²²⁹

According to the U.S. Chamber of Commerce website (2022), gig workers typically find work through the internet and apps. Employers will post their company's individual needs on job boards and be paired with a gig worker best suited for the position. The wages, skillsets and gig worker's suitability for the project can be considered to be matched with an employer.

We cannot predict if the gig economy will grow or shrink. But in the interim, why not explore hiring gig workers?

Apprentices

This is an old idea that is new again. Modern *apprentices* are paid a living wage while learning the skills for the job. According to the Department of Labor, "apprenticeships combine paid on-the-job training with classroom instruction to prepare workers for highly-skilled careers."

Many apprentices have no prior experience in the industry and may not have a college degree. These hires are custom trained to meet the needs of the particular industry. According to Accenture, an organization that espouses and promotes apprenticeships, apprentices are "sticky"—they stay in the organization that trained them.²³¹ Apprentices have a 92% employment retention rate after apprenticeship completion.²³²

Sources for apprentices include Department of Labor Apprenticeship website (dol.gov/agencies/eta/apprenticeship), professional associations that supply certification training (hrapprentice.org/), or consortiums of apprenticeship programs such as the Chicago Apprentice Network (chicagoapprenticenetwork.org).

University Undergraduates

Did you know that approximately 53% of college graduates are unemployed or working in a job that does not require a bachelor's degree? The average Student Loan debt is \$37,172 and average student loan payment is \$393 per month. (Washington.edu-DOIT Report, April 20, 2021)

This group, both before graduation and after, offers current skills! Yet, as cited in the Washington DOI-IT report (2020) Ninety-one percent (91%) of employers prefer their candidates to have work experience.²³³ How are they supposed to get experience?

As universities begin to emphasize skills (in addition to knowledge) as course objectives, undergraduates become viable as gig workers. What more synergistic relationship could exist than that between education and the world of work? Educational institutions prepare us for life and a substantial part of life is work. Students are educated in the current best practices. They are accustomed to research and writing. They know and use current technologies proficiently. Why not employ them—at least for short-term projects—before the educational process is completed? Technology platforms available for these purposes include LinkedIn, Parker-Dewey, Handshake, GivePulse, Pathrise, and others.

Previously Incarcerated

The Second-Chance Pell Loan allows approved institutions of higher education to supply Pell Grants to incarcerated students to earn their degrees.²³⁴ They emerge with college degrees. SHRM endorses hiring those who developed skills while in the correctional facility or who previously had skills. It is estimated that there are approximately five million formerly incarcerated people in the U.S. Among that population, there is a 27% unemployment rate.²³⁵ While not all jobs are appropriate, common sense provides guidelines on those positions that may work.

Toyota is one organization that successfully implemented a second chance hiring program where they vetted more than a thousand applicants, 92% of which they found to be qualified to work at Toyota's Georgetown production facility. Of those employees, hundreds were put on the job, and none of them have been terminated because of behavior related to their criminal record. Toyota found that second-chance workers are dependable, thankful, and dependable.²³⁶

While hiring as a "second chance" is not the only option, it certainly is an option. The Second Chance Business Coalition is a collaboration of industry leading organizations that promote hiring ex-inmates. Information about how to access the previously incarcerated for hiring purposes can be found at this website: https://secondchancebusinesscoalition.org/.

Older Workers

Many older workers left the workforce unexpectedly, through retirement, or by separation during the pandemic. As a result, organizations experienced a significant knowledge drain. Employers are now reconsidering this group as potential rehires. Older workers are themselves interested in re-entering the workforce. In fact, according to the Bureau of Labor Statistics, older workers are "projected to outpace all other age groups over the 2014-2024 decade…by 65-86% in labor participation rate."

While adjustments for upskilling or reskilling may be necessary and flexible scheduling is desirable, the retirees offer worker characteristics that are consistent and a solid argument for hiring. Quoting from an article in the SHRM blog author, Lynn Grensing-Pophal (December 14, 2021) suggests that retirees offer "maturity, reliability, work ethic, self-sufficiency, connections and networks, curiosity, and the ability to survive and thrive in a corporate setting."

Ensure that your AI embedded in e-recruiting tool does not vet and eliminate potential older applicants. Use websites such as AARP (https://jobs.aarp.org), LinkedIn, Kelly Services (https://www.kellyservices.us) and your own HCM for rehiring released or retired workers.

WORKFORCE MANAGEMENT AND SERVICE DELIVERY

One of the biggest challenges for HR leaders is to keep pace with the rapidly evolving service delivery and learning innovations. Enhancements and addons to existing HR systems supply a way to update and magnify the importance of the HR system your organization presently has. (For more on the varying types of HR systems, see Chapters 8 and 9). Cloud computing is now mainstream. Its advantages are indisputable including (a) pay-as-you-use (so you only pay for what you use), (b) scalable (you can add on features), (c) 24 X 7 support, (d) secure storage management, (e) automatic updates, (f) collaboration, and (g) mobility.²³⁹

Cloud-Computing and Security

An added benefit to cloud is the automatic updates offered that increased security. Security updates are pushed to the user who then accepts and uploads the patches/updates. If done so immediately, further damage is mitigated. While not completely foolproof, as long as users accept the updates, the cloud offers real-time defense against cyberattacks.²⁴⁰

Cloud-Computing and Workforce Management

The most recent Gartner Market Guide for Human Capital Management Suites (December 20, 2021) states that no human capital management vendor "is best in class for all HCM functions or use cases." HR's overall technology strategy may rely on a single platform, an integrated technology solution to support multiple HR functions, *or* multiple smaller systems—sometimes known as best-of-breed (BoB) solutions, each supporting a different HR function, or a combination of both. The system configuration will shift based upon the functions of your core HR system. (Waddill, 2018, p. 111)

According to a 2021 Gartner report on cloud-computing human capital management systems, vendors continue to invest and expand their Workforce Management (WFM) capabilities. Furthermore, the adoption of WFM modules available within Human Capital Management (HCM) suites is increasing in response to demand for more sophisticated functionality. Given the pace and complexity of today's recruiting environment, being in the cloud is now a strategic imperative.

The ideal configuration for an HR system is not one system doing everything (although ERPs can accomplish that), but rather a constellation of systems where the HR core system handles certain functions and other systems, apps, and platforms are integrated. These may provide functions that

the larger system does not do as well. Or these other technologies can build out the capabilities of a basic system.

Apps and Platforms for Technology Gaps

Apps are widely used both personally and professionally. But how are they best used in the workplace? *Applications/apps* are like plug-ins that fill gaps in HCM systems' functionalities. There are apps for everything imaginable, from fitness apps to learning apps, to employee reward and recognition apps, recruiting apps, onboarding apps, and more. Hundreds are available for a wide range of purposes. Apps connectivity to the HCM or other software can occur using an API. An *Application Programming Interface (API)* is code that allows two software programs to communicate with each other.²⁴²

Cautions About Apps

Since they are so popular and easily used it would seem that the direction to go is to get apps to supplement and support all HR functions. However, the proliferation of apps has potential problems. Apps can cause a fragmentation of system functions. Unknown or unidentified apps may not be supportable by the workplace IT department. Apps age out of use but they may continue to bill. When apps are disconnected from HR systems, it results in a loss of valuable information for data analysis.

Best Practices for Effective Use of Apps

Since apps are not going away, how do we move forward? HR leaders should ensure that managers notify HR and IT of the HR apps that they and subordinates are downloading and using in the workplace. (This may help with IT support.) Monitor existing apps — when they are no longer being used,

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remove them. Once removed, share that information with all users and notify of a replacement app if one has been chosen. Share best design principles for users to employ when they are selecting apps. Follow design best practices when creating apps in house.

Identifying and Deploying Skills for Mobility

The so-called "Skills Revolution" --occurring at present—is an initiative to build new skills that are needed for what some have labeled the "Fourth Industrial Revolution." The skills movement requires that leaders identify future skills needed to compete in their industry in the 21st Century. Once identified a comparison of future and present skills will unearth the skills gap. HR must redesign jobs to include future skills. Then HR leaders must pursue a talent development strategy to fill the skills gaps.

The Skills Revolution highlights the concepts of fit and mobility. With data, we can help people to enjoy work and their careers by putting them in positions where their skills "fit" the jobs or skill development prepares them for "mobility" to move to new positions that are challenging and meaningful. Often automation, Artificial Intelligence, machine learning, etc., impact the job redesign as well. Research finds that workers are more engaged and satisfied when there are good skills fit along with future opportunity to move up or laterally within the organization. ²⁴⁴

Adjacent Skills and Mobility

Using adjacent skills is also a method to close the skills gaps. Enable cross-functional talent mobility by identifying "stepping-stone" skills to bridge skills gaps across the organization. Then move employees with those skills —

who are willing to be mobile—into positions within other areas of the organization. Workers have mobility within the organization when they can apply their skills in positions (fit) in other business units and functions in the workplace. HR should provide opportunities for growth and reward those willing to be mobile within the organization.

Skill Identification Using Workforce Management Technology

The skills approach to identify existing skills and upskilling to build new skills is a proven, successful business strategy. It demonstrates commitment to employees. It is inclusive. It offers a positive impact by addressing skill shortages. And it relies upon data-driven solutions.²⁴⁶

It is possible to use existing technologies within your organization to identify employees' skills. Sources of employee skill information include an organization's Applicant Tracking System, employee behavioral assessments, HR system talent profiles, performance reviews, LMS learning data and outcomes, other testing tools, and other content platforms (Coursera, course completions, skill searches). Based on the information culled from these systems, HR can identify and match employees that have the necessary skill sets with open positions as well as connect them with internal job postings, mentorships, stretch assignments, etc.

Additionally, skill identification platforms exist. These tools enable employees to pursue ongoing career development by identifying existing skills, offering training solutions for skill development, measuring and tracking skill development, defining learning pathways, and providing analytics of progress. Technology organizations in this space include Degreed, SkyPrep, OpenLMS, Fuel50, Qooper, and others.

Reskilling and Upskilling Defined

According to a McKinsey Report dated January of 2021 "most companies worldwide—87 percent (87%)—are aware that they either already have a skills gap or will have one within a few years." When there are skill gaps identified within an organization, as is commonplace, the typical approach is to hire to fill those gaps. However, an alternative approach is upskilling and reskilling employees. Here are the definitions for reskilling and upskilling, two important strategies:

- "Reskilling involves training employees on an entirely new set of skills to
 prepare them to take on a different role within the company. This typically occurs when workers' previous tasks or responsibilities become irrelevant, often due to advances in technology."
- "Upskilling occurs when workers improve upon existing skills and deepen their abilities and impact within their area of expertise." 248

An example of an organization that both upskilled and reskilled during the pandemic, is Pindel Global Precision, located in New Berlin, Wisconsin. When COVID-19 hit, requests for custom machined products fell drastically. The cash flow dropped, and the CEO, Bill Berrien, needed to pivot to a new paradigm. Pindel Global Precision realigned excess capacity into the business of making ventilator parts. When that business dried up, CEO Berrien began a new initiative to upskill his workers. Some chose to take programming training to be able to program the high-tech machinery on site, others took quality training. The training was taken online in the workplace, much of it through Tooling University. As the pandemic continued, CEO Berrien pursued another initiative: AS9100 aerospace certification which is required for

production of high precision parts for the aerospace industry. Once certified, Berrien incubated and launched a wholly owned subsidiary within Pindel called Liberty Precision to pursue the exciting aerospace market.²⁴⁹ Clearly the strategy to upskill and reskill made a positive difference for Pindel Global Precision and its employees.

Continuous Performance Development

Continuous performance development (CPD) is a human-centered approach to promoting, evaluating, and improving employee performance. It relies upon coaching for performance management and there are technologies designed to support coaching for performance development. But the technology has to enable the following.

Coaching requires the coach and coachee to establish clear goals. Goal realization is only achievable when the coach relies on best practices of establishing *SMART* goals where objectives are Specific, Measurable, Attainable, Realistic, and Timebound conditions and *FAST* goals that require Frequent discussions are Ambitious in scope, Specific in their metrics, and Transparent to everyone in the organization. (Sull & Sull, 2019, pp. 22) So, any technology used must be capable of capturing SMART and FAST goals at the individual level. Further, the SMART/FAST goals should align with Key Performance Indicators. Any system used for continuous performance development must also be capable of documenting real-time feedback/assessment, regular "check ins" for manager feedback, and steps within the performance support process.

Technologies supporting these coaching goals include tools like Workhuman, BetterUp, Leapsome and others. They address the human side of coaching, performance management, employee engagement, and learning.

As always, work with your IT department to consider how to integrate these systems into your existing "technology stack."

WORKFORCE MANAGEMENT AND LEARNING TECHNOLOGIES

A renewed interest in learning technologies emerged by necessity during the pandemic. These learning platforms and services have all the capabilities of those described in Chapters 4, 5, and 6 of Digital HR (Waddill, 2018).

Upskilling and reskilling initiatives gave rise to a need for flexible, just-in-time training. This could include various resources beyond traditional courseware on an LMS such as industry certification training, Massive Open Online Courses or MOOCs (see Digital HR, pp. 44 and 48), prepackaged instruction, videos, white papers, gamification (pp. 51–53), simulation (pp. 45, 71, and 77), and testing/assessment to ensure the learning took place (Chapter 14). Due to increased pressure to upskill/reskill quickly, microlearning grew to preeminence. Let's first define the term and then explain its significance.

Macrolearning vs. Microlearning

Most organizations rely heavily upon *macrolearning* which can be described as learning that takes place over time—possibly hours or days, focuses on larger and more complete skill areas. includes the knowledge, practice, and feedback to achieve needed skills. It may be distributed over-time versus concentrated (event) learning.²⁵⁰ The original learning management systems were designed for "macrolearning" courseware.

Microlearning, on the other hand, uses "chunking" which involves organizing large blocks of content into smaller, logical "chunks" or courselets (see Universal Instructional Design Principles, Digital HR, pp. 56 and 70).

Each small, learning chunk includes critical instructional elements such as practice, feedback, and reflection and there is a framework into which the chunks fit. Learning chunks can be offered alongside each other as elements of "macrolearning" and hosted on the same learning management system (see Digital HR Chapters 4–7). Macrolearning courses need not compete with microlearning courselets, rather they are complementary.²⁵¹

Microlearning on its own is insufficient for upskilling and reskilling. However, when used in conjunction with Knowledge Management, the combination offers a powerful approach to addressing skill gaps.

Massive Open Online Course Learning Platforms

LinkedIn Learning, a subsidiary of LinkedIn, is "an American massive open online course (MOOC) provider." LinkedIn Learning uses a variety of medium including video courses taught by industry experts. All the courses on LinkedIn Learning fall into three categories: Business, Creative, and Technology. The power of MOOCs is that they democratize learning by making it available for all. Additionally, they feed into the upskilling/reskilling movement. Essentially a worker may learn new skills for free or at a low cost and remake themselves to be competitive with skills for the 21st century job market. Organizations may also use these tools as well for a cost-effective solution to upskilling/reskilling in-house.

Agile Learning: Knowledge Management and Microlearning Combined

When microlearning is combined with knowledge management (for knowledge management description, see Chapter 12) you get a powerful result. This interdependence creates an agile learning environment where the organization's knowledge assets, microlearning, and macrolearning can all be

offered through a mobile, employee-self-service (ESS) portal (see Chapter 11 for ESS portal). The training is curated -- selected, organized, and presented using professional or expert knowledge--to combine a variety of knowledge assets including video, games, podcasts, infographics, white papers, recorded town halls, etc. A combined learning and Knowledge Management approach enables the employee to have more control by giving access to all learning and knowledge assets concurrently.

Many organizations have successfully blended KM, macro, and microlearning to provide flexible learning opportunities. Tenable is a cybersecurity organization located in Maryland, USA. The Senior Director of Sales & General Enablement Sales and Marketing noted that many of the salesforce spent a lot of time planning and researching for call planning rather than making the calls. To improve performance, he chose a combined KM and microlearning path that fit in the natural flow of work. For instance, users can be in Salesforce and based on the information in a sales opportunity, the system will make content/microlearning recommendations. Highspot--like a Netflix for sales content--is used for content curation, management, searching capabilities, and presentation software. (See https://www.highspot.com/) Highspot also includes product brochures, company presentations, zoom recordings, and formal training modules using Articulate's 360 Storyline (https://articulate.com/360/storyline) and Rise (https://rise.com) which is a pull-down feature that emulates a knowledge management approach. Every learning event has its associated assessment/test. Test result data is exported to a database for analysis.

Tenable's sales learning options provide an example of learning that is "fit into the flow of work and life" where the system "pushes" customized learning suggestions (for new hire onboarding for instance) and experienced sales professionals can "pull" down knowledge assets on an as-needed basis. ²⁵²

Performance Support, an Alternative to Learning

Training is not the only solution to knowledge gaps. Sometimes we are driven by what they call "*The Law of the Instrument*" or an over-reliance on a familiar tool.²⁵³ Human Resource professionals can fall prey to the thought that the answer to every performance problem is training.

Online mobile performance support provides an effective alternative to training.²⁵⁴ Different types of performance support applications include quick reference guides, infographics, process maps (which allow employees to discover how a task fits into the context of the procedure as a whole), microlearning modules (as a refresher), mobile apps for those without access to a computer or paper resource, eBooks/interactive PDFs, how-to-videos, FAQs (frequently asked questions), process checklists, and learning portals.²⁵⁵ (For more on performance support, see Chapter 7.)

SUPPORTING REMOTE AND HYBRID WORK

Remote (work-from-home, third party location or flexible workplace) or a blend of remote and in office—also called hybrid work—is now commonplace. The hybrid workforce model is one of flexibility, adaptability, and shared ownership on the part of employers and employees. We were forced by necessity to work remotely during the pandemic lockdowns; now it is the new normal. The level of success for remote work depends upon whether workers have the technology, resources, and support to necessary to succeed.

Current Trends in Hybrid/Remote Work

According to Microsoft Worktrend Research (2021), 73 percent (73%) of workers surveyed want flexible remote work options to continue, but 67 percent (67%) want more in-person time with their teams. ²⁵⁶ We can conclude that hybrid work is desirable for many people, but we need to make some changes to accommodate in-person activities!

Additionally, research indicates that employees are unhappy with the lack of access to resources workplace resources. Fifty-five percent (55%) of employees struggle to find and share organizational knowledge and 61% are not completely satisfied with their company's workplace tools and technologies according to an HCM Workplace Report (May 11, 2021).

Necessary Conditions for Hybrid and Remote Work

Research on hybrid and/or remote work demonstrate that the following are necessary for hybrid work to succeed:

- Employees can access all the necessary personal and work-related tools/software/networks that enable them to succeed working remotely.
- Knowledge sharing occurs and is as available remotely as it is in the physical workplace (see Chapter 12).
- The time on-the-job can be accurately tracked.
- Productivity is measured by output, outcomes, deliverables, and milestone achievements.
- Flexible work hours, days, and job-sharing options are provided.
- Workers can communicate regularly with superiors and colleagues using technology.

The conditions necessary to accommodate hybrid work can be enabled through technology. However, the opposite is also true as we found out during the pandemic. An example of a real technology problem encountered during the pandemic and remote work appears in this case of a Big Tech Firm.

In 2020 and 2021, as reported by the New York Times, a Big Tech Firm during the height of the pandemic shortchanged its workers on leave. The employees were taking routine leave, but the tracking systems were completely backed up, and the "systems were prone to delay and error." As the second largest employer in the U.S. with more than 1.3 million in its workforce, these problems became exacerbated. Employees were shortchanged and worse due to inaccurate data.

While the Big Tech Organization has finished repaying workers for their owed backpay, the problem highlights what is intuitively obvious. The time tracking and leave systems were not integrated. The organization is "streamlining and connecting systems, clarifying its communications."²⁵⁷ The lesson learned is to ensure that your HR systems are integrated and that everyone knows how to use them properly!

Hybrid Work Leadership Decisions

When faced with the shift to hybrid work, leaders face clear decisions about policy, physical space, and technology. The general workforce does not want the option of remote work to go away. So, it is time to ask the following questions: What do people need to work remotely, who can work remotely, how much time can they spend working remotely? Where and how will collaboration take place? The answers to these questions will impact the design of the hybrid workplan.

Technology should enable people to work from home, the office, deskless, on the move, and from manufacturing facilities. What are the technology requirements to do so?

Tools and Technologies to Support Hybrid Workers

Digital "tools" necessary for remote and hybrid work include software, hardware, network, and online assets described throughout the Digital HR text. It is possible that your workplace invested in these tools before or during the pandemic. There are countless opportunities for innovation. Now is time to take stock of what is in place and what is needed as new or supplemental technologies.

The novelty in the remote/hybrid workplace is not the technology, rather how it is used. For instance, during the pandemic lockdowns organizations looked beyond virtual classroom tools (Learning Management Systems or LMSs) for learning. We know that LMS and Groupware (such as Microsoft Teams and Zoom) were used for meetings, internal training delivery, external third-party training, development, coaching/mentoring sessions, internal communications, peer-to-peer collaboration, team collaboration, and other innovative uses. Same technology, different applications. (For explanation of Learning Management Systems, Social Networks, and Groupware see Chapters 4, 15, and 13, respectively.)

Providing Performance Feedback in a Virtual/Hybrid Environment

Feedback should be continuous, immediate, verbal as well as written, specific, and tied to goals. Current research indicates that coaching offers the most powerful feedback mechanism (rather than the yearly performance feedback). Sir John Whitmore, a coaching expert, offers clear coaching best practices.

Help employees to set personal goals following the GROW Model: Goal setting, present Reality, consider the Options available, and consider what you Will do.²⁵⁸ It must be tied to established SMART and FAST goals. With the target in mind, employees can work toward those objectives and leaders can "manage by objectives" that are aligned with key performance indicators (KPIs). KPI's can be established that clearly engage with the strategic objectives. A starting point could simply be to ask *what will people who are coached be able to do better* and *how will that benefit the organization?* From there it will be easier to be more specific about what KPI's the organization needs to include.²⁵⁹

How does technology enable ongoing performance feedback? Virtual face-to-face feedback can occur using groupware products such as Zoom, Microsoft Teams, and other video-enabled tools. Additionally, measuring performance must be redefined so that it supports the end goal. Thus, rather than time in the chair, measure outputs. How that is done will vary based upon the position. But the tools for performing the task will also provide insights into the quality of performance.

Josh Bersin of Deloitte says coaching is "so hot."²⁶⁰ Technology can facilitate the coaching process while capturing performance data. Some preeminent vendors in the coaching market include BetterUp, Torch, CoachHub, Bravely, SoundingBoard, Pluma (owned by Skillsoft), and Ezra. The attractive aspects of these tools are the continuous nature of coaching and data collection.

While coaching is of course one approach continuous performance management, there are others as well. The goal is to avoid the once-per-year approach to performance feedback. It should be more relational and ongoing. A performance management process enabled by technology includes:

- Establishing and entering in the system personal goals, projects, and tasks ideally aligned with the organization's goals.
- Entering employee notes when tasks and goals are accomplished. The manager can see the progress and the content is visible to others.
- Managers/co-workers give real time feedback on activities, identify strengths, and provide suggestions for improvement. This depends on everyone knowing how to provide coaching feedback.
- Manager and the employee hold periodic check-in discussions either in person or as a videoconference.

The software aggregates and summarizes the employee's progress for optional formal review. ADP, BambooHR, Ceridian, Cornerstone OnDemand, Kronos, Oracle, Saba and Ultimate Software are established vendors offering continuous performance applications. Newer contenders include 15Five, 7Geese, BetterWorks, Clear Review, Reflektive, SnapEval, WorkBoard and Zugata.²⁶¹

Measuring Performance for Remote and Hybrid Workers

Performance assessment has shifted to assessment of output, deliverables, milestones, etc. Productivity is key. Be sure to measure results rather than level of activity in the organization's social media, groupware, etc. And do not forget to measure the soft skills involved in the daily interactions. Instead of examining timesheets and hours spent on task, "focus on business outcomes, teamwork, and collaboration" says Senthil Rajagopalan, COO and President

of Profit.co. This project-based approach to performance measurement results in less employee burnout and more quantifiable outcomes.²⁶²

Innovations in Measuring Performance for Hybrid Workers

With regard to capturing the data for measuring results, the soft skills may be the most challenging to measure. Tomas Chamorrow-Premuzic, Chief Innovation Officer at ManpowerGroup indicates that we already have the tools to measure results. "We need to measure output, and not just at the individual level." Chamorro-Premuzic suggests linking sources of data in unique ways to combine levels of analysis. For example, Chamorro-Premuzic suggests merging the individual 360-degree reviews with team engagement and team evaluation data.

Assessing team engagement can be accomplished using natural language processing to measure team language by identifying words as well as tone, both positive and negative. *Data visualization tools* — where you take a set of data, input it into a spreadsheet software, use the visualization and charting tools to convert the data into a graphic—also provide insight into team engagement. Combining these data points offers multi-faceted, well-rounded performance data that reflects the work process as a whole.²⁶³

Use a Digital Front Door to Diminish Technology Challenges

Remote and hybrid work present challenges. HR leaders must identify the processes and technologies needed to enable employees to flow seamlessly between on-site and remote working modes.

The silos inherent to 21st century workplaces can be diminished through technology. Consider establishing a "Digital Front Door" for all employees. A digital front door offers access to mobile platform that allows all

of the organization's tools to be accessible via a single app. This accomplishes the following: (a) Creates a single point of access (b) integrates different data sources and tools seamlessly and (c) increases interoperability. Eliminate different onboarding experiences by making onboarding cloud-based, flexible, and secure. Ensure mobile access for all workplace tools and that data is accessible and can be maintained remotely by employees, managers and HR. Built into the front door access should be a communication mechanism. Make digital learning available to anyone at any time through the front door. Digital conferencing should be accessible to all, with organization's assistance to ensure equal connectivity.²⁶⁵

Security and Hybrid Workers

The hybrid workplace creates increased security challenges as potential cyber attackers can exist both within the network and outside it. For security measures, the current guidance goes beyond a Virtual Private Network or VPN.

Experts advise establishing alternative remote access methods such as multifactor authentication and a Zero-Trust Network. Multifactor authentication adds a layer of security by requiring users to provide a variety of identifying information. In this you should give some control to users as to what methods they use to login offering passwordless authentication and biometrics to avoid the risks of relying on passwords and providing a more convenient way for users to authenticate. 266 The Zero-Trust Network is a security framework where access is continuously reauthorized and verified based on user permissions and authentication.²⁶⁷

Technology, Performance Support, and The Rise of Telehealth

When examining performance and technology impacts, it would be short-sighted to ignore the rise of telehealth. The digital front door is a primary tool for telehealth. This is where assessment, diagnosis, and follow up on a patient's physical health is all conducted remotely. Of additional interest for HR is the use of the Internet-of-Things (IoT) to help manage patient performance toward wellness goals.

What could be more convenient than going to a medical appointment without leaving the house (or office)? With 81% of patients being more likely to select a medical provider who offers telemedicine over one who does not, telehealth provides patients with a flexible alternative to in-person while possibly attracting more patients to the practice. Its features include streamlining practice processes to online rather than paper for intake, patient claims, payments, and prescription details. It enables virtual visits for routine check-ins for elderly, technology-enabled visits for techno-savvy younger people, and healthy alternatives for the at-risk population. Telehealth can be cost effective. But embracing telehealth requires leading the way rather than reacting after the fact; this is true for any innovative technology. According to a Gartner report (October 7, 2020) telehealth is here to stay. "It's time for healthcare delivery organizations to adopt a digital first strategy."

Tips and Tools for Establishing a Hybrid Environment

- Create new policies and procedures customized for the hybrid environment.
- Enable inclusivity so that the employee experience is equitable for both those who are working onsite and remote.

- Develop protocols, expectations, and behaviors for the hybrid environment.
- Establish a person who is devoted to constantly checking and monitoring communication, collaboration, knowledge exchange, technology usage.
- Invest in people to get them the tools, connections, technologies that they need.

The Role of IoT in Hybrid Work Environments

IoT is presently being used to do many things in the workplace including:

- Managers can see aggregated performance data for a team, to get a real sense of how the team is doing without the risk of identifying any individual.
- Data broken down by task type can help individuals understand when they perform certain tasks best, and schedule meetings when the group is most likely to be engaged.²⁷⁰
- 5G will enable IoT, including and most importantly Industrial IoT where
 it is anticipated that entire factories might be transformed into unified,
 interconnected entities.
- More businesses will integrate IoT connections into their logistical operations, and these improvements will make supply chains significantly more robust.
- Wearables will aid enhance accessibility for persons with impairments, increase augmented reality (AR) apps, and assist companies in reducing workplace injuries by 2022, among other things.²⁷¹

IoT is clearly on the rise; the interconnectivity and resulting data serve as fertile ground for innovation in the HR arena.

MAINTAINING WELLBEING IN THE WORKPLACE

The pandemic affected our overall health, but mental health in particular. From the CDC website, note the following data about mental health in 2020.

Of 5,470 respondents who completed surveys during June 2020, 40.9% reported an adverse mental or behavioral health condition including anxiety disorder or depressive disorder (30.9%). The number is significantly higher in the age group of 18–24.²⁷²

We have seen the rapid and radical deterioration of mental, physical, emotional, societal, community, and professional "wellness." What can be done?

Wellbeing, Not Just Wellness

A comprehensive look at the topic of wellness leads to literature and a well-being movement that started decades ago. Gallup, the oldest polling company in the U.S., began examining overall wellness some forty years ago. Based on over 100 million global interviews, Gallup's CEO, Jim Clifton, and Chief Workplace Scientist, Jim Harter, designed an approach to overall wellness that they call wellbeing-at-work.

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Analysis of the data offered insight that led to the identification of *five essential elements to human wellbeing*. They are:

Career wellbeing: You like what you do every day.
 Social wellbeing: You have meaningful friendships.
 Financial wellbeing: You manage your money well.

4. Physical wellbeing: You have energy to get things done.

5. Community wellbeing: You like where you live.

The most crucial element being career wellbeing serves as the foundation for the other four. But all five are necessary for what they call "net thriving."²⁷³

The Connection Between Wellbeing and Employee Engagement

The connection between employee engagement and employee wellbeing is intuitive. However, this Gallup Poll data is alarming.

"For the first year in more than a decade, the percentage of engaged workers in the U.S. declined in 2021. Just over one-third of employees (34%) were engaged, and 16% were actively disengaged in their work and workplace." Gallup Poll, 2021

We know there is a direct relationship between employee engagement and overall wellbeing. If things are not going well in other areas of life (physical, emotional, financial, social, community, etc.), it affects the work life, involvement, and personal outlook of workers.

Why Measure Wellbeing?

The impact on the organization when there is a lack of employee engagement and related wellbeing is measurable. Wellbeing affects

- An organization's finances in terms of the costs of turnover and replacement hiring
- Its reputation and brand and whether or not employees advocate for the organization's commitment to employees
- The level of employee commitment to the organization
- The ability of an organization's employees to handle change.

In the Chief Executive Officer online magazine for March 2022, the guidelines included adding an extra "P" to your strategy. Typically, organizational plans include the Five "Ps" of Pipeline, Pace, Process, Portfolio and Products, but the additional "P" is for People. The article goes on to ask the questions, do we have the right people, skills, culture, programs, and level of wellbeing?²⁷⁴

We can deduce that employees are key to an organization's success. How can we ensure that they are taken care of and encouraged? As Jack Welch said, "Anything worth doing is worth measuring." So, measure employees' wellbeing first and then addresses the outcomes.

How to Measure Wellbeing

Measuring wellbeing is one way of determining employees' general state as well as individual need. One tool is the Clifton Strengths instrument or survey. (See Chapter 14) The questions in the Clifton Strengths survey requires employees to self-assess their personal wellbeing on a scale of one to ten in the five major categories cited above.

While the Clifton Strength Survey exists and fills a gap, there are a variety of ad hoc ways to "measure" wellbeing. For instance, manager assessment can be an indicator. That combined with other meaningful, workplace relationships can supply the first "indicators" when an employee has issues or is suffering on any of the wellbeing scales. Human interaction is important to wellbeing, and it is through human interaction that we can identify distress.

Indicators of distress or a lack of net thriving follow. They include absenteeism, ill-health retirements, days lost to low mental health, percent of dissatisfaction from employee support, voluntary resignations, a low percent of positive opinion surveys about work environment, and the like. These serve as distress datapoints.²⁷⁵

Tools to Support Wellbeing

Organizations are using technology to aid employees in measuring and reenforcing wellbeing. One example is the Wellbeing@Work Live (W@W) platform co-developed and used by Gallup, Inc. Dave Allman, Chief Growth & Innovation Officer at Wellbeing@Work, explains that the W@W platform brings to life Gallup's world-leading science and insights in the areas of wellbeing, resilience, and employee engagement. With W@W, employees quickly determine their wellbeing status, natural strengths and receive personalized pathways to improve their wellbeing in six essential areas: Emotional Career, Social, Financial, Physical, Community. Recommendations include proven daily guidance from Gallup, readily available Total Rewards that are often underutilized (employee benefits, perks, learning and development), and external resources endorsed by their employer.

The W@W tool is one approach to ensuring employees get the assistance they need for overall wellbeing. Another approach to wellbeing is supplying a toll-free number answered twenty-four hours a day, seven days a week for employees use at any time. Additionally, managers who are trained and informed should be aware of wellbeing resources and refer employees to those.

CASE STUDY

Chevron—Wellbeing Policies for a Global Organization

By Noel Ryan, Manager, Wellness & Productivity and Janis Davis-Street, Manager, Global Public Health & Special Projects

For decades, Chevron has focused on health and safety in the workplace. Known as a company with a friendly and respectful environment, Chevron emphasizes sustaining and evaluating its health and wellness programs. That said, the pandemic offered its challenges. The organization was already undergoing a major business transformation before the pandemic based on changes in its business. While employees were aware these transformative changes were coming, the pandemic escalated uncertainty.

In 2021, Chevron launched the Enterprise Health Index. All Chevron–business units and operating companies completed an assessment and submitted data which gave them a score on how they were doing in terms of addressing health and wellbeing. There was a scale for responses measuring health in the business unit in multiple dimensions: tobacco environment, food and nutrition, occupational hygiene, individual wellbeing etc. The results were provided to the business unit, indicating areas of strength and areas of opportunity. Based on those outcomes, business units set future goals. Chevron found pockets of excellence and shared those learnings widely.

Chevron's emphasis on health and wellbeing is also demonstrated by leadership. One of the Enterprise Health Index dimensions measures the "organizational commitment to health." Leaders are encouraged to share their own learnings and their organization's strategies to improve health.

At Chevron, employee surveys are issued periodically, and these include health and wellbeing questions. Leaders value survey feedback and put in place strategies to address areas of concern and improve scores. Concerns over stress management and work life balance have been identified and addressed.

The outcomes of the Enterprise Health Index of 2021 and employee surveys have been made available on company dashboards in digital format. Results from the Enterprise Health Index provide information beyond surveys as data from various programs and processes, including repetitive stress injury prevention, exposure monitoring, and regional and local health risks are also taken into consideration.

The Chevron approach of surveying and creating an enterprisewide health index is a tangible demonstration that our workers are valued. We understand the business value of a healthy workforce, recognizing that healthier employees are safer, more likely to stay in their jobs, less likely to be absent and to have lower health care costs.

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Leadership and Wellbeing

Leaders make a difference in the culture of an organization and in the lives of those they lead. Wellbeing is the organization's responsibility, and it falls on the shoulders of leaders to know their employees well enough to be able to see the red flags when something is awry. Additionally, leaders should be authentic and share their own wellbeing journey.

Legal and Regulatory Considerations

There are always privacy concerns which well-designed tools can avoid. For instance, the Wellbeing@Work software aggregates information at various levels with anonymous entries. However, the individual completing the Clifton Strengths assessment receives customized feedback which is exclusively available to that person. Be sure that whatever tool you use has privacy measures built in.

FUTURE STATE OF DIGITAL HR

Considerations about the future are always a bit dicey. That being said, our predictions in 2018 have absolutely become mainstream. Below are some future predictions:

- Cloud computing's variations for the future will not be handling services
 horizontally, rather vertically so that services that are back office or not
 mission-oriented, will be handled by third-party vendors in the cloud.
- Artificial Intelligence and Machine Learning will be unleashed as "robot reinforcements" for purposes such as cybersecurity and other functions; humans will be there for decision making and resolving "the tricky bits."²⁷⁶

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- Quantum Computing is a rapidly emerging technology that relies on a
 wholly different computer design that uses the laws of quantum mechanics to solve problems too complex for classical computers. There is a race
 to be the first nation to develop a usable version of quantum computing
 which will make our traditional computers obsolete.
- Agile Human Resource professionals will be more involved in team collaboration and transparency, continuous feedback, better adaptability to "test, learn and optimize" solutions allowing teams to shift quickly if needed, and offer a greater measurement and visualization of output in the form of time, cost, and performance of any initiative.²⁷⁷

These developments and technologies are on the horizon. They will alter the practice of HR as well as the cyber security approaches necessary for privacy and safekeeping information.

Tips and Tools: Technology Strategies for HR Leaders

Consider the following as you transition to remote/hybrid working as a more permanent condition:

- Ensure that HR systems are cloud-based and mobile accessible with integrated technologies.
- Hire using innovative tools and recruiting technologies as well as alternative sources of talent.
- Focus on employee skill development by updating and documenting existing and adjacent skills, then using best practices for upskilling and reskilling.

- Use technology-enabled coaching and ongoing performance feedback mechanisms for performance management.
- Promote wellbeing by measuring it, providing resources and policies to support it, and modeling healthy approaches to wellbeing.
- Lead in this complex environment by following best practices: ask the
 questions, listen, collaborate, adjust, and distribute -- do not hoard -leadership.

Conclusion

The purpose of this addendum was to update this text to meet the challenges we all face as HR professionals in a post-pandemic world. Leadership sets the tone and establishes the culture for the organization. Without inspired, informed, ethical, employee-centric leaders, efforts will fail.

The lessons learned follow. Focus on employees. Pursue alternative avenues for identifying and hiring qualified employees. Strive to create meaningful work through automation and job redesign while offering employees career growth opportunities. Use the workforce management technologies that you have or invest in new cloud-based technologies to promote innovation and efficiency. Test the technologies to ensure they support diversity, equity, and inclusion. Establish the best culture imaginable. Support and promote wellbeing. Be agile in your approach to challenges.

End-of-Chapter Technology Strategy Questions

Considering your organization's overall business strategy, answer the following:

What specific measures will enhance hiring initiatives within your organization?

- How can upskilling and reskilling be integrated into your organization's business strategy?
- How will your organization address the ongoing reality of a hybrid workplace and provide all employees with the tools/technologies/support necessary to do so?
- What modifications will ensure that performance management and ongoing feedback become the norm and how can technology be used for that purpose in your organization?
- What measures are needed to support and encourage employee development in your organization?
- How can employee wellbeing be supported and enhanced in your organization?

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