Hype Cycle for Human Capital Management Technology, 2020

Published: 27 July 2020 **ID:** G00447990

Analyst(s): Helen Poitevin

This Hype Cycle informs application leaders who are supporting HCM technology transformations about the latest technological innovations on the market. It will help them prioritize investments by providing insights into the maturity of key applications and technologies.

Table of Contents

List of Tables

List of Figures

Strategic Planning Assumption

By 2025, 60% of global midmarket and large enterprises will have invested in a cloud-deployed human capital management (HCM) suite for administrative HR and talent management, but they will still need to source 20% to 30% of their HCM requirements from other solutions, due to gaps in functionality.

Analysis

What You Need to Know

This Hype Cycle helps application leaders supporting human capital management (HCM) technology transformation to understand the maturity and capabilities of technologies in the marketplace. It includes technologies for:

- Administrative HR
- Talent management
- Workforce management (WFM)
- Integrated HR service management (iHRSM)

Growing adoption of HCM technology has led to the entry of new vendors, venture capital funding, and continuing market consolidation and development. New vendors and evolutionary developments exist in relation to:

- Employee experience
- Social- and analytics-driven recruitment
- Platform as a service (PaaS), integration and automation
- Artificial intelligence (AI)
- Virtual assistants (VAs)
- Coaching, mentoring and performance feedback

Cloud HCM suite deployments have reached the mainstream. Investment in innovative point solutions, PaaS extensions and custom-developed applications to augment suite functionality is again on the rise. Demand across enterprise and midmarket segments for greater functional depth

and innovation gives many point solution providers the opportunity to greatly exceed the overall market's growth rate.

The Hype Cycle

The core functional pillars of HCM applications are:

- **Administrative HR:** Core HR and HR information systems (HRIS, for organizational and employee data, employment life cycle processes, transactional employee and manager self-service), benefits and payroll administration.
- **Talent management:** Recruiting, onboarding, performance management, compensation planning, career and succession planning, learning and development, and workforce planning.
- **Workforce management:** Time capture, absence management, scheduling, task/activity tracking, budgeting and forecasting.
- **Integrated HR service management:** Content delivery via a portal and knowledge management capabilities for employees and managers. This may also include case management (ticketing/routing), business process management tools and digital document management.

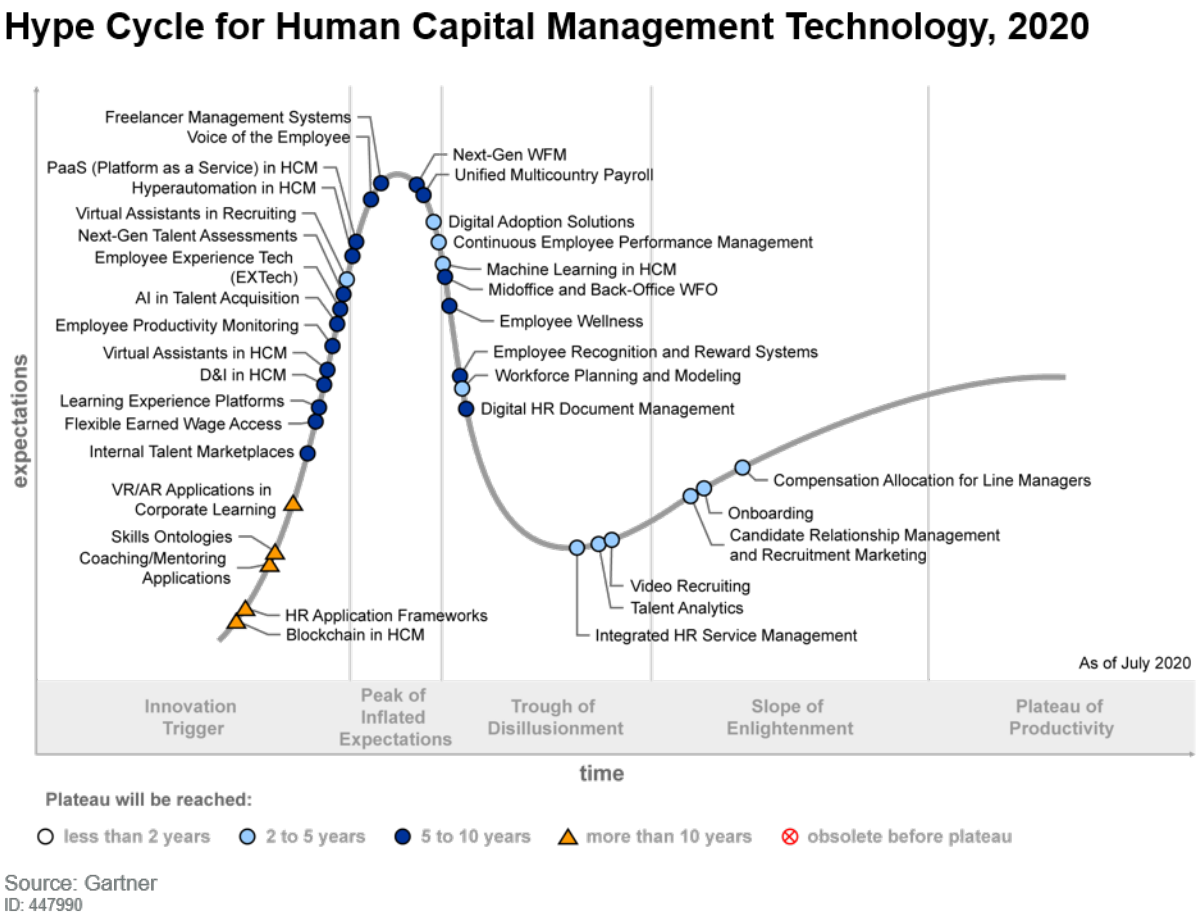
Innovation in the HCM market is driven by:

- Technological advances, with examples including AI, augmented reality (AR) and virtual reality (VR).
- Developments in the consumer technology sector, and how these have changed users' expectations of business applications.
- Wider macro/social developments surrounding the nature of work, such as the increasing importance of diversity and inclusion, automation, remote working, and the spread of "gig" work.
- Customer demand and extension requests, with functional gaps often being filled through an ecosystem of partners.

Increasingly, designers of HCM applications aim to improve the candidate, worker and manager experience, while acknowledging that most employees spend relatively little time using these applications. Many applications have a conversational UI or use insights from behavioral science disciplines to engage users, influence behaviors and contribute to improvements in organizational culture. Continuous learning, listening, feedback and performance management are becoming necessary to support agile ways of working. To support ongoing pandemic responses and prepare for subsequent economic uncertainty, the following technologies have attracted renewed interest: next-gen WFM (including contact tracing), skills ontologies, employee productivity monitoring, learning experience platforms, workforce planning and modeling, and internal talent marketplaces.

The technologies featured in this Hype Cycle reflect these developments, including the recognition that talent management and HCM suites have become mainstream.

Figure 1. Hype Cycle for Human Capital Management Technology, 2020



Source: Gartner
ID: 447990

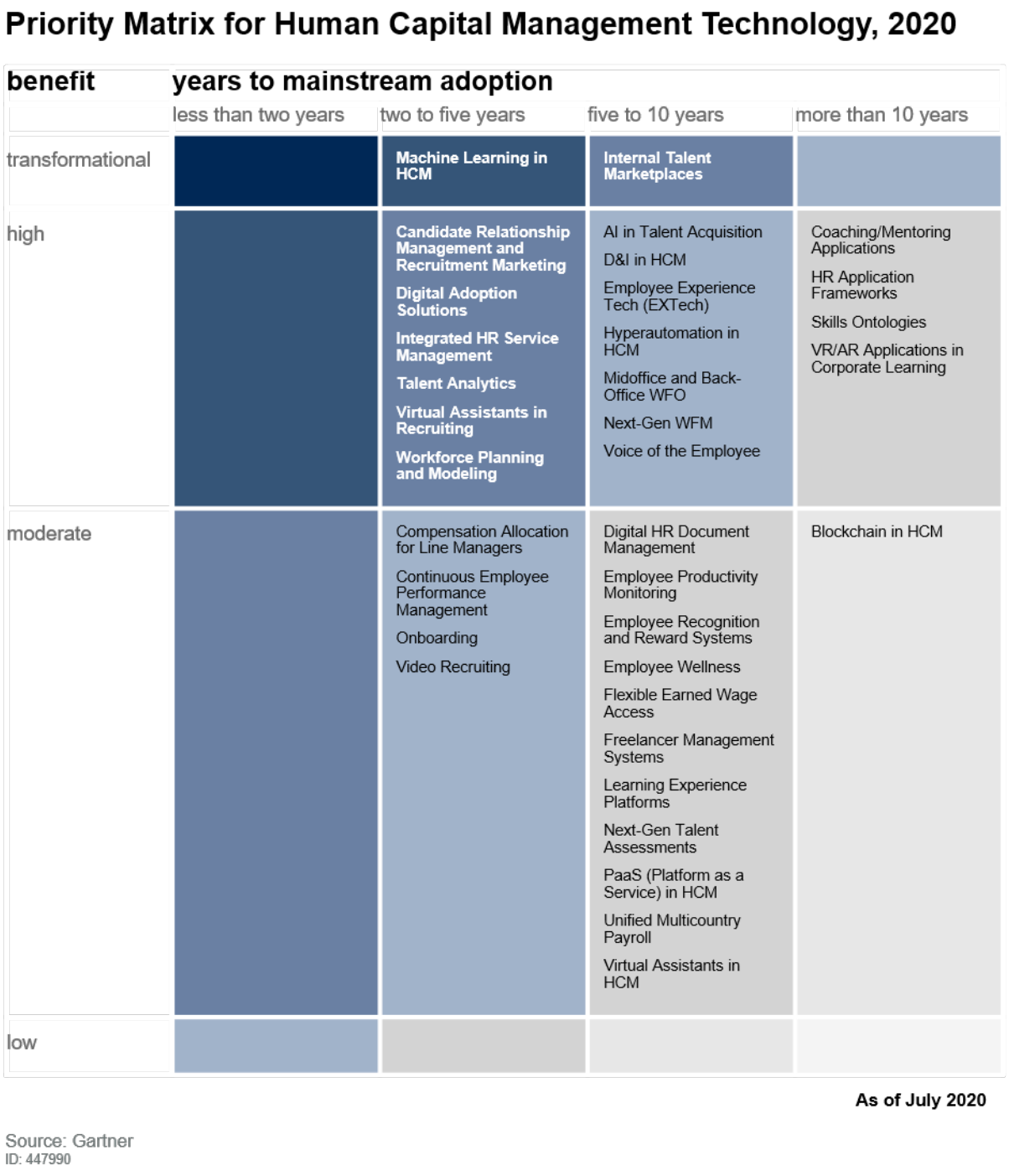
The Priority Matrix

The Priority Matrix groups the included technologies in terms of their potential level of benefit and the number of years until they reach mainstream adoption. Machine learning in HCM increases automation possibilities and allows for personalization and data-driven decision making across many talent processes, for HR, business leaders and employees. Internal talent marketplaces support new, agile ways of working. They impact how employees find work and growth opportunities, how managers and project managers find and use talent, and how staffing and personnel budget decisions are made.

Readers should note that Gartner has assigned a benefit rating to each technology according to the expected outcome of that technology's deployment *in the majority of cases*. Thus, for example, we believe that investing in PaaS in HCM will usually be of moderate benefit, but it might be of transformational (or other) benefit in some cases for particular organizations.

All the technologies in this Hype Cycle have been included because Gartner has identified them as being important and potentially interesting to application leaders transforming HCM. As such, none should be overlooked.

Figure 2. Priority Matrix for Human Capital Management Technology, 2020



Source: Gartner
ID: 447990

Off the Hype Cycle

The following have been removed from this year's Hype Cycle:

- **Cloud HCM suites:** These have reached the Plateau of Productivity and are now considered mainstream.
- **Consumer HR apps:** These have been removed due to lack of interest and because representative providers exist in other market categories.
- **Talent management suites:** These have reached the Plateau of Productivity, either through maturity of adoption or approaching obsolescence (see "Gartner Retires 'Magic Quadrant for Talent Management Suites'").

In addition:

- **Continuous employee performance feedback** has been renamed continuous employee performance management to highlight the focus on management.

On the Rise

Blockchain in HCM

Analysis By: Ranadip Chandra; Avivah Litan

Definition: A blockchain is an implementation of distributed ledgers that support a shared single version of truth based on immutable data, across multiple entities. Blockchain in HCM refers to applications that leverage blockchain's multiparty consensus mechanism to authenticate and manage a shared version of employee data across organizations.

Position and Adoption Speed Justification: The market for blockchain platforms in HCM is fragmented with many generalist vendors extending their platform to include HR use cases. However, the entry of large global HCM vendors into blockchain consortiums has finally paved the path to mainstream adoption.

Gartner analysts have observed the following applications as the drivers for blockchain in HCM:

Employee Career Credentials: Independently authenticated by past employers and/or educational institutions, and can be reused by a candidate in each subsequent application.

Smart Contracts for a Gig Economy: Specify the conditions agreed upon by the employer and the candidate. Once the contract is successfully completed, a prior approved sum held by an escrow account can be automatically released and credited to the professional's account.

Blockchain Payroll Platforms: Transactions through cryptocurrency exchange enable payments directly to employees without any bank involvement. The temporary or project worker receives immediate release of the earnings when the work is complete.

Additional use cases include blockchain platform for timekeeping, employee personal data and more. The rate of adoption is expected to vary significantly for each of the use cases. Sharing of "Employee Credentials" across employees and organizations is likely to be the application that gains the most traction early on.

Barriers to adoption include:

- Organization policies oftentimes do not favor a commitment to join and share data with a consortium or external platform.
- Many HR functional leaders are not ready to participate in a sharing economy as all blockchain platforms require co-actions from multiple entities.
- Blockchain supports decentralized identity where users own their own identity data, and decide who can view it. This runs counter to current business models where vendors and organizations own and sometimes monetize employee data.

User Advice: Even though blockchain has many possible scenarios of application in HCM technology, many such outcomes can be achieved using simpler alternative methods. The main advantages blockchain brings in HCM technology are "Trust" and "Transparency" around employee data.

Application leaders in HCM are advised to prioritize the need of being transparent with employee data in their organizations while assessing blockchain platforms rather than evaluate the features and functionalities:

- Understand the business benefits, economy, consensus algorithms and protocols of the platform before investing.
- Currently, prioritize enterprise permissioned blockchain platforms over decentralized blockchain as the former offers more data confidentiality, membership control, and data interchange standards suitable for HCM domain.
- Identify the most suitable use case from the list and pilot with not more than one application to observe the results in the near term. Leverage the success to justify further investment in blockchain platforms in other areas within HCM technology.

Business Impact: Even though process improvement and efficiency gains from blockchain platform are moderate, the added level of trust supported by distributed consensus mechanisms can significantly cut down many time-consuming and redundant processes in HCM. Such processes include — manual background verification for shortlisted candidates, payment processing approvals, cross-border payment currency adjustment and more. Importantly, the transparency in the data helps build trust in employer-employee relationship.

Benefit Rating: Moderate

Market Penetration: Less than 1% of target audience

Maturity: Embryonic

Sample Vendors: AnyTask; APPII; Aworker; Chrono.tech; HireMatch; Lympo; Peoplewave; Velocity Network Foundation; Workday; Wurknow

Recommended Reading: "Blockchain Can Be Key to Solving Trust Issues in HCM"

"The Future of Blockchain: 8 Scalability Hurdles to Enterprise Adoption"

HR Application Frameworks

Analysis By: Sam Grinter

Definition: HR application frameworks are an approach for deploying multiple functional modules from different vendors. They rely on the seamless flow of data from multiple third-party vendors. The anatomy of HR application frameworks includes:

- Functional node — supports specific HR processes as well as caters to local requirements.
- Subfunctional node — functional nodes may act as a central node for other closely-related functions.
- Central node — a hub that unifies data and user experience. The natural evolution of today's cloud HCM suites.

Position and Adoption Speed Justification: HR application frameworks have begun to emerge and the value that they deliver (unifying multiple disparate systems and supporting a more seamless extension beyond the confines of the "traditional" cloud HCM suite) is understood. At present, few vendors exist and appetite to replace a cloud HCM suite (assuming it has been purchased within the last five years) will be low due to cost and time taken to configure and deploy a cloud HCM suite. However, demand for HR to support business resilience and scalability will rise and become more of a priority as businesses begin to recover. In the short- to midterm, it is likely the cloud HCM suites will adapt to deliver some of the capabilities offered by HR application frameworks. However, over time, as technology develops and the limits of existing/old technology are reached, it is expected that a new generation of HR platforms will emerge. Readers should note that the concept of the HR application framework is distinct from cloud HCM suite products offering "out of the box" API integration, which in most cases did not deliver the expected results for end users.

User Advice: HR application frameworks is a very nascent concept, and suitability at present is limited to very early adopters. During this initial period the majority of organizations will be better served lobbying their existing HR technology vendors to invest in their platforms in order to support some of the capabilities offered by HR application frameworks. Examples of such capabilities include smoother integration with third-party applications, PaaS, and application marketplaces. Furthermore, when (re)negotiating terms and conditions of purchase, push for flexibility and scalability for license/user counts and functional modules in order to deliver greater business resilience.

If engaging with an HR application framework vendor demand quality assurances before committing to a deployment. Furthermore, run a deployment as a pilot and/or in tandem with an existing cloud HCM suite to deliver redundant support of HR technology at least initially.

Business Impact: HR application frameworks can potentially provide the following advantages to organizations:

- Consolidation of data — the central node acts to aggregate data across the HR application framework. While this may not immediately seem to be an advantage over a cloud HCM suite, the integration with functional nodes supporting local and functional requirements will improve access to data. This supports improved system performance, reporting and planning.
- Access to innovation/new functionality — organizations are not to be tied to the development roadmap of one (or more commonly a handful of) vendor(s). Instead, organizations will be able to select and deploy any vendor or product so long as it supports the requirements of the HR application framework.
- Improved user experience — the central node acts as a central point of navigation and will likely incorporate capabilities such as virtual assistants spanning the breadth of the HR application framework.
- Scalability — owing to the connectivity of the functional and central nodes, it is possible to quickly turn functions off/on as desired without much technical intervention. However, commercial terms/norms will need to change to deliver on the business benefits. Typically, the average initial contracting term with an HR software vendor is three years for a set number of user licenses. This approach does not support scalability. However, as we have seen with COVID-19, many vendors (especially smaller vendors) are prepared to offer much more flexible terms including extended free-trial periods and pilots.
- Extensibility/Customization — this type of architecture enables organizations to create an HR application ecosystem customized to their specific requirements.

Benefit Rating: High

Market Penetration: Less than 1% of target audience

Maturity: Emerging

Sample Vendors: ADP; BizMerlinHR

Recommended Reading: "The Future of Cloud HCM Suites"

"Innovation Insight for Packaged Business Capabilities and Their Role in the Future Composable Enterprise"

Coaching/Mentoring Applications

Analysis By: John Kostoulas

Definition: Coaching and mentoring solutions provide a set of tools to maximize the effectiveness of a corporate mentoring or coaching program. These tools are used by the two sides of the mentoring/coaching arrangement (mentors/mentees, coaches/coachees), as well as HR and line

managers. These tools enable the optimal program, matchup, execution of sessions, auxiliary resources, and reporting/analytics.

Position and Adoption Speed Justification: Mentoring and coaching has been applied in the corporate world for years, but with narrow focus (typically covering senior executives). As a result, corporate programs were executed either through internal resources or through small service firms or individuals. In the last few years, there is increasing demand to expand mentoring and coaching across the workforce, particularly for middle managers. The consequence is that the scope of coaching and mentoring programs can be increased from tens to hundreds, or even thousands, of participants. This is often referred to as democratization of coaching and mentoring. As mentoring and coaching is used toward development, there is also an increasing need to integrate them to the overall development process.

HR is facing challenges to ensure scalability of corporate mentoring and coaching programs, as they now include thousands of potential matchups, thousands of sessions and a diverse range of development objectives (and integration to other learning, development and performance management activities). HR and line managers also need reporting to understand the impact of these mentoring/coaching arrangements and of the overall program. The use of technology to cover these requirements in a scalable way is exactly the scope of tools covered by mentoring/coaching solutions. On top of technology, these solutions provide a pool of external coaches or mentors, as well as services to help with the optimal design and launch of the mentoring or coaching programs. Multinational organizations can also use these platforms to connect their own pool of approved external coaches and mentors to opportunities. During the COVID-19 period, the need for coaching and mentoring platforms is pronounced by the lack of a face-to-face option in the office.

User Advice: Mentoring and coaching solutions are quickly getting adoption in North America, in Western Europe and some markets in Asia/Pacific. Vendors cover one of the two areas, so the category is effectively containing two subareas, one for mentoring and one of coaching solutions. Few vendors have already achieved scale, particularly in the coaching subarea, with a number of multinational deployments and extensive coverage of languages and external coach pools. In addition, some learning experience platforms include some coaching and mentoring features.

The set of technology functionality in these two areas is getting standardized. It includes tools to launch these programs in the workforce, to optimize matching between mentors/coaches and mentees/coachees (based on their skills and interests) or create options for people to choose, tools to support scheduling and delivery for the sessions (including mobile applications or video), links to content or assessments that can enhance the effectiveness of each session, and reporting/analytics tools. Therefore, it is important that vendors do not have gaps in these functionality areas.

However, these technologies are still nascent in adoption, therefore scalability of the coaching/mentoring vendor is an important assessment criterion, as programs can quickly expand, particularly in multinational organizations. For coaching solutions, quality of coaching services, and the corresponding vetting process of external coaches by the vendor, is also paramount. Check that vendors have a multistage vetting process for hiring coaches, then have a quality control process (including coachee ratings) to use for coach retention decisions. Content and advice offered by the vendor to help the quick takeoff of a program is also very important, particularly for programs

related to a specific topic (e.g., diversity mentoring, team coaching). Vendors are also increasingly using AI to help with matching and scheduling, as well as with the use of assessments to help personalize the coaching/mentoring session and/or to provide related learning content. Finally, depth of reporting and analytics is important for HR to make decisions to continue, suspend or expand coaching and mentoring programs. This is an area where vendors are evolving their solutions to include quick ratings, predictive analytics and benchmarking.

Business Impact: The impact of democratization of coaching and mentoring can be transformational for the development and engagement of the workforce. Therefore, we expect these programs to expand rapidly and become a substantial part of the development cycle for the entire workforce. For areas such a middle management, it can soon become a standard expectation from employees. As use cases quickly expand to include diversity, millennial to senior employees (reverse mentoring), entire teams or new hires, so does the importance for scalability and the need for technology support.

Benefit Rating: High

Market Penetration: Less than 1% of target audience

Maturity: Emerging

Sample Vendors: BetterUp; Chronus; CoachHub; MentorcliQ; Mentorloop; Mentornity; MoovOne; Pluma; River; SAP

Recommended Reading: “How HCM Technologies Can Scale Inclusion in the Workplace”

Skills Ontologies

Analysis By: Helen Poitevin

Definition: Skills are the essential building block to be able to automate the selection and development of talent. Skills is a term increasingly used to broadly represent capabilities, competencies, knowledge, and experience. Skills ontologies organize skills in a data structure. They are built and maintained either manually and with lists of synonyms, or, increasingly, in combination with various AI and graph-based techniques. Some are limited to a single language, while others are designed with AI to be language agnostic.

Position and Adoption Speed Justification: The application of AI for talent acquisition, talent development and workforce planning is transforming the role of skills data. AI techniques such as clustering enable automated detection of skills from job descriptions, candidate resumes and other data sources. Graph-based technologies allow for the mapping out of such terms in multi-dimensional spaces. Such maps allow improved detection of both similar and widely different terms by measuring proximity. These new techniques change user expectations for relevance of job searches, the matching of candidates to job roles, and the recommendation of learning content. They are applied in talent acquisition, learning, talent development and workforce planning tools. However, these techniques are very new and immature on the market. Many technology providers rely on more traditional methods to standardize skills templates and build job libraries.

In the past decades, skills libraries were built up primarily by industrial and organizational psychologists. They analyzed and codified skills and skills levels within job categories and job function frameworks. These methods, while very effective, are labor intensive and limited in scope. They often focus on cross-functional skills or on a limited number of job specific technical skills. These existing frameworks may serve as a standard within emerging AI-enabled skills ontologies.

User Advice: Application leaders evaluating skills ontologies solutions should request information about the following:

- Data source used to detect, identify and map out skills. This can include job descriptions and candidate resumes, collaboration tools, project management tools, knowledge bases, expertise location technologies, and other applications where work gets done.
- Whether an existing standard or set of standards are used. For example, those focused on the U.S. market may use the Department of Labor Statistics O*NET standard.
- The ability to detect, add and use organization specific skills data. This is essential for organizations investing in emerging spaces with new and highly specific types of skills, capabilities, or knowledge.
- Methodologies used to map out and analyze skills. Differentiate between tables of lists and synonyms, library science skills, or AI techniques. Many use a combination of these techniques.
- Methodologies to infer skills and the strength or relevance of those skills. Skill relevance or level tends to decline naturally over time through lack of use or need.
- Ability to use the skills ontology through an API in a custom-built organization-specific application. Only some skills ontologies are provided as a service.
- User experience design. How does the application engage users to validate or update their skills? Are certain skills tagged as mandatory with formal workflows to assess and evaluate them? Is this part of a talent matching workflow for internal hiring, external hiring, talent development, internal talent marketplace? How easy is it to use the data for workforce planning?
- Partnership potential with the provider to improve skills ontologies over time. Ensure internal resources are aligned to manage the partnership with the technology provider.

Skills ontologies represents both a very mature consulting services based market and a very immature AI techniques technology market. Capabilities vary widely. Evaluate solutions carefully and manage internal expectations regarding what value can realistically be achieved. Consider only using skills technologies for a part of the organization which requires this data to manage the effective distribution of work. Plan for experimentation and gradual rolling out of these capabilities to more job categories over time.

Business Impact: Skills are described as the new currency for talent. They are a foundational element for managing the workforce within any industry. Improved and automated skills detection and assessment allows for significantly greater organizational agility. In times of uncertainty, or when competition is fierce, organizations with better skills data can adapt more quickly by more

accurately identifying which opportunities are feasible immediately, and which ones require more investment. They can redeploy workers more quickly when priorities shift. They can also be much more efficient in the distribution of work and the scheduling of workers. This improves productivity and avoids costs through improved planning cycles. Skills ontologies are one of the primary enablers for organizational agility and adaptability in a changing work environment.

Benefit Rating: High

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: 365Talents; Burning Glass Technologies; Cornerstone OnDemand; Eightfold; FidraSoft (DiscoverMe); Google; IBM Watson; JANZZ.technology; Textkernel; Workday

Recommended Reading: "AI Use Cases in Human Capital Management Technology"

"Finding and Building Talent in the Digital Talent Ecosystem"

"Workforce Planning — How to Use Technology to Support Planning Processes"

"The Future of Talent Acquisition Requires Talent Engagement and Systems of Action"

"Focus on Business Outcomes When Investing in Learning Analytics Technologies"

VR/AR Applications in Corporate Learning

Analysis By: Jeff Freyermuth

Definition: Virtual reality (VR) and augmented reality (AR) are two different yet related technologies. VR technologies create computer-generated environments to immerse users in a virtual environment. AR technologies overlay digital information on the physical world in order to enhance it and guide action. VR and AR allow organizations to create immersive learning opportunities and scenarios that are often expensive, resource intensive and challenging to replicate in fact-to-face training.

Position and Adoption Speed Justification: A growing number of organizations are experimenting with and piloting VR and AR platforms for a variety of different corporate learning use cases. With the recent shift toward remote work, organizations have been evaluating other ways to delivery face-to-face training. These tools are still in the infancy stage in corporate learning, as there are still challenges due to cost, time needed to create content, quality of the technology, inadequately designed content, voice and emotion recognition, and the need for considerable customization. In addition, organizations looking to use VR will require additional budget for needed hardware and viewing devices. However, COVID-19's derailment of all face-to-face training, coupled with the emergence of new solutions is driving growing demand, as buyers start their VR/AR journeys.

Organizations have initially been looking at use cases that are often too dangerous or too expensive to replicate in a face-to-face manner. Most early adopters looked at complex scenarios from the

military, healthcare (i.e., surgeries), flight simulations and various safety training exercises. We are just starting to see organizations adopt VR and AR for sales training, product training and soft skills training, such as public speaking. However, based on most learning and development organizations being risk-averse and the technical maturity and challenges to be overcome, it will be over 10 years before these technologies reach the Plateau of Productivity.

User Advice: The use of VR and AR in corporate learning creates highly engaging learning opportunities that are often too expensive, too resource-intensive or too challenging to replicate in a face-to-face setting. For example, early adoption has been from retailers looking to prepare store employees for once-a-year events such as Black Friday, or unexpected high-risk scenarios like store robberies. In addition, a few healthcare providers are using VR to prepare ER managers for a wide variety of emergency scenarios. Further, the use of VR and AR should also be evaluated as an option for replacing face-to-face training during times when face-to-face is not permitted or allowed (example: due to COVID-19).

Since this is still a developing area, organizations should begin by seeking or creating well-designed content that is aligned to specific use cases or business initiatives. Gartner recommends organizations should begin their VR and AR implementation by identifying areas where there is prebuilt, out-of-the-box, high-quality content that meets your organization's specific requirements. In addition, based on the immaturity of the market, we recommend initially running experiments and pilots, and determining whether the product or platform is a good fit that provides additional value beyond traditional corporate training methods.

Business Impact: VR and AR can support a wide variety of simulation and training applications, including rehearsals, scenario reviews and responses to events. VR and AR can also shorten design cycles through immersive collaboration, and enhance the user interface experience. Businesses will benefit due to VR's and AR's immersive interfaces, helping create task efficiencies or reducing costs associated with new product design. These technologies can enhance the understanding of information through advanced graphical visualization and simulation technologies. The new generation of VR and AR applications and tools promises to support a wide variety of corporate learning activities, including:

- Complex simulation and training applications, including safety training
- Military simulation and training, such as flight simulators
- Rare retail store situations (e.g., Black Friday, robberies, etc.)
- Equipment operator training
- Product marketing to extend in the brand interaction or in product design
- Modeling, such as geomodeling in the oil industry
- Sales training to see how executives respond to various scenarios
- To enhance public speaking skills

Benefit Rating: High

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: FundamentalVR; PIXO VR; Strivr; Viar360; VirtualSpeech; WorldViz; zSpace; ZeroLight

Recommended Reading: "Top 10 Strategic Technology Trends for 2019: Immersive Experience"

"Getting Started Developing Virtual Reality Experiences"

Internal Talent Marketplaces

Analysis By: Helen Poitevin

Definition: The "gig economy" relies on marketplace platforms to match customer demand to workers who are offering products, services or solutions. An internal talent marketplace uses similar principles to match internal employees and, in some cases, a pool of contingent workers, to short-term project and work opportunities, without the involvement of a recruiter. It includes marketing features, matching algorithms and feedback functionality, and it aligns with principles of adaptive organizational design.

Position and Adoption Speed Justification: Internal talent marketplace platforms enable workers to explore growth opportunities, take on temporary "stretch" assignments, and build a portfolio of work that they can use to market themselves in pursuit of further work. Innovation teams and business units that have adopted management approaches involving, for example, self-forming teams were the first to show interest in investing in internal talent marketplaces.

Internal talent marketplaces may also tap external talent, but they primarily focus on matching internal talent to job deliverables, small tasks and roles.

These marketplaces are relatively new solutions, so their availability is limited, as is the market's readiness for them. The lack of availability has led some organizations in high-tech, telecom and professional services industries to build their own solutions.

The COVID-19 pandemic has given rise to projects and challenges that were often unanticipated. Consequently, many organizations need to gather knowledge of their internal skills in new ways. This has led to increased interest in internal talent marketplaces, which can help managers with the redeployment of staff from low-demand to high-demand activities. Furthermore, these solutions can help organizations tap into existing talent when external hiring is not an option. They also make it easier to reskill and upskill talent when new skills are needed quickly.

The performance of matching algorithms and the ability to integrate data from other systems remain clear differentiators between solutions. Accurate detection and tagging of competencies, skill sets, knowledge, experience and other attributes is not easy. Matching that information to the wide variety of work opportunities in large organizations will take time.

User Advice: Application leaders in organizations that are not ready for internal talent marketplaces can start by investing in internal mobility processes. They can use existing human capital management and talent acquisition technologies to improve visibility and consistency when filling new positions with internal candidates.

Application leaders supporting organizations that are keen to introduce an internal talent marketplace should start by piloting it with groups that are ready for one — these may include innovation and agile development teams. During a period of pandemic response, an internal talent marketplace may be used chiefly for the redeployment of talent from teams with low volumes of work to teams with high volumes. The emerging state of internal talent marketplace technologies means that pilots or deployments of limited scope can help give providers and internal teams the time to learn how to best derive value from these solutions. Application leaders should anticipate the need for significant co-development investment with application providers. They should also evaluate internal resource availability and determine whether they could manage their resources better by building their own application, or by tapping into the development teams, data scientists and roadmaps of technology providers.

The most advanced organizations will be ready to invest in integrating a variety of data sources to automate the detection and classification of skills and competencies. Data sources can include project management systems, collaboration tools, knowledge bases and expertise location systems.

Application leaders looking to invest in internal talent marketplace solutions must invest equally in design thinking and similar methodologies, such as workplace ethnography. Breaking down jobs into deliverables, and enabling employees to “bid for” and win such jobs represents a significant change to management practices. Proven practices have not been established, so careful measurement of the impact on workers’ engagement and productivity, along with team performance, will be crucial.

Business Impact: The COVID-19 pandemic has increased the need for business agility and new ways of working in a context where the gig economy had already challenged established notions of employment. Marketplace-based platforms make it much easier to connect customers directly to suppliers. Internal talent marketplaces take advantage of the increased flexibility of the gig economy and such platforms.

Large enterprises needing to pivot quickly and push innovation to the edges may be encumbered by heavy management and control structures. However, internal talent marketplaces have the potential to change that. They establish trust through feedback mechanisms. They allow for worker-led innovation and help workers take full control of their careers. They enable much better and more granular tracking of the skills, competencies, knowledge and interest of individual workers. This, in turn, will give enterprises a much better view of their workforce and improve workforce planning. Internal talent marketplaces will help bring about leaner, more agile and more adaptable organizations.

Benefit Rating: Transformational

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: 365Talents; Ascendify; Catalant; Gloat; Oracle; Patheer; ProFinda; Workday (Rallyteam)

Recommended Reading: "AI Use Cases in Human Capital Management Technology"

"Finding and Building Talent in the Digital Talent Ecosystem"

"Workforce Planning — How to Use Technology to Support Planning Processes"

"The Future of Talent Acquisition Requires Talent Engagement and Systems of Action"

"Maverick* Research: The Rise of Freelancers — Precarious Labor Makes Societies and Organizations Vulnerable"

Flexible Earned Wage Access

Analysis By: Ron Hanscome

Definition: Flexible earned wage access solutions enable workers to receive a portion of their earned income in advance of their employer's actual payday. Providers market this capability to employers, who then deploy it as an optional benefit. How much the employer subsidizes the cost (usually a monthly per-employee subscription) can vary by customer. The employer's ability to control a percentage of available wages varies by provider, as does the range of disbursement options (such as pay card or bank account).

Position and Adoption Speed Justification: Historically low U.S. unemployment and a robust economy in 2019 has shifted quickly to double digit unemployment and the uncertainly surrounding the pace of economic recovery. In this environment, many hourly employees (59% of workers in U.S. prepandemic) continue to live from paycheck to paycheck, with little financial reserve. Faced with unplanned expenses, many have resorted to payday advance loans, suffered bank overdraft fees, or turned to other expensive and short-term credit options to make ends meet. Flexible earned wage access (FEWA) apps have emerged over the past four years as a cost-effective alternative that helps employees to deal with unexpected expenses, and thus reduce financial stress. Although most vendors have targeted U.S. employers with predominantly hourly-based workers, these offerings have been shown to also pertain to salaried workers dealing with unplanned/emergency expenditures. There has also been emerging market activity and customer adoption in several countries in EMEA, with the U.K. leading the way. Despite the nascence of this concept, continued customer interest and ongoing vendor product development investments have resulted in a slightly above average progression in the Hype Cycle for 2020.

Current providers have entered this category from three major avenues:

- Point solutions that serve as an overlay to a customer's existing payroll and workforce management solutions, and facilitate the FEWA transaction, from request to disbursement.

Many of these partner with existing payroll solution providers and are part of their “marketplace” of ancillary offerings that leverage standard APIs for integration.

- North American midmarket HCM suites with comprehensive software and services that are beginning to deliver FEWA capability as an optional product feature.
- Financial well-being solutions that provide FEWA as the “borrowing” component of a holistic educational and coaching approach.

User Advice: Application leaders supporting HCM technology transformation should:

- Work with HR and operational leaders to assess the potential positive impact of a FEWA implementation on worker engagement, productivity and retention. This is especially important if your organization is in an industry subvertical which is experiencing rapid growth during the current pandemic/recovery period. Clients in other subverticals should consider FEWA as a way to improve flexibility of access to pay for even salaried workers who are dealing with unexpected expenses due to the pandemic and aftermath.
- Understand that the current solution provider landscape is extremely country-specific, and adoption is predominantly in the U.S. and U.K. markets at present. The timeline for multiple competitive offerings in other countries is several years out. This will limit this concept’s applicability if an employer has hourly workers in multiple countries and wants to make this capability available to all.
- Determine which of the three vendor approaches is most suitable for their organizational context, as one size doesn’t fit all. The relative priority mix of speed to benefit, desire for integrated capabilities, and breadth of solution (such as a FEWA transaction focus versus broader financial well-being philosophy) will result in different outcomes for each client.
- Carefully evaluate trade-offs in the relative maturity of provider offerings, especially when considering North American midmarket HCM suites where this capability is either being planned or is in the very early adopter stage.
- Vet how each provider ensures ongoing compliance with sometimes volatile country wage laws (and in the U.S., state and local regulatory requirements as well).
- Confirm that the provider’s approach matches internal legal risk tolerance and requirements.
- Consider the impact on current time approval processes, which could shift from pay-period-based approvals to a daily frequency.

Business Impact: Early adopters of FEWA have delivered it as a benefit to improve employee engagement, expecting that workers will see this as evidence of organizational care. An employee able to avoid usurious payday loans may be more productive by reducing “presenteeism,” as decreased financial stress may improve focus on actual job tasks. Retention can also improve, as workers are less likely to leave for another opportunity offering a slightly higher salary if the FEWA benefit is not available there. Those deploying FEWA as part of a broader financial well-being solution may also improve usage of defined contribution retirement plans and other optional

benefits. This is due to the provision of training and coaching that helps workers to escape the paycheck-to-paycheck cycle and have more discretionary income to invest in their future.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: Branch; Ceridian; DailyPay; Even; FlexWage; Hastee; Instant Financial; PayActiv; SimplyPaid; Wagestream

Recommended Reading: "Empower Workers and Energize Your Employment Value Proposition With Flexible Earned Wage Access"

"Cool Vendors in Human Capital Management: Enhancing Employee Experience"

Learning Experience Platforms

Analysis By: Jeff Freyermuth

Definition: Corporate learning technologies enable organizations to train, develop and engage their learners. A learning experience platform (LEP) is the front-end layer that typically sits on top of a learning management system (LMS). LEPs are used to enhance an individual learner's interactions and engagement via greater personalization, content curation and expanded breadth of content.

Position and Adoption Speed Justification: A growing number of organizations are searching for more open learning platforms that offer better personalization capabilities. LMSs traditionally have focused capabilities on the scheduling, registering and tracking of a learner's activities. LEPs look to go a step further by delivering personalized learning paths, channels and collections that allow learners to easily organize, access and share relevant resources, plus gain visibility on additional learning assets that others find valuable. With COVID-19, organizations have been trying to provide a wider range or learning resources to all of their employees. LEPs have benefited from this.

As the digital workplace evolves, organizations continue to look to LEPs as a way to aid learner adoption, increase content creation and collaboration, and drive engagement across a variety of stakeholders. A new set of vendors are focusing on learner experience, engagement, skills development and productivity. The more established corporate learning vendors are starting to partner with these new providers, or are looking to begin offering their own LEPs. A few of the LEPs are beginning to focus on skills inventory and assessment, and this pivot will likely aid adoption.

LEPs allow learners to access, curate and share a wider variety of formal and informal content. Learners are no longer limited to only accessing content that complies with industry standards such as Sharable Content Object Reference Model (SCORM). They are able to access and utilize publicly available content from sources such as Harvard Business Review, TED Talks, YouTube, and a wide variety of massive open online courses (MOOCs) providers.

Almost all organizations continue to start with pilots of LEPs, due to the amount of change management needed. Early adopter customers appear highly satisfied with the user experience (UX) but are struggling with the behavioral change required of the learners, alignment to the business and/or driving a specific business outcome.

User Advice: Organizations can't afford to treat all learners the same. Simply purchasing a generic learning platform and creating one set of standard training materials leads to low adoption and dissatisfied learners. When a workforce is spread across geographies and consists of various cultures, jobs and preferences, the one-size-fits-all approach is less than optimal. Further, millennials have tended to have a stronger predilection for digital technologies and expect deeper levels of personalization relative to other age groups, such as baby boomers.

As part of a learning strategy, organizations should investigate and pilot LEP tools. Since the LEP market and providers are still maturing, there is no commonly defined feature set. Therefore, evaluate the strengths, weaknesses and roadmap focus of the different tools to determine their fit for your organizational culture and context. Also consider their compatibility with existing talent technologies to ensure integration and continuity across platforms.

Focus the initial pilot on learners who can quickly and clearly see the benefit to themselves, their teams and the overall organization. Organizations should also prepare for the challenges of obtaining buy-in from corporate stakeholders, or convincing skeptics who may not see value in LEPs because they have become profoundly accustomed to more typical learning practices and solutions.

Business Impact: Invest in LEPs to improve learners' experience and engagement by providing them with a more open, interactive and effective way to continually learn. These tools allow organizations to deal with the accelerating pace of the digital workplace. Organizations looking to improve their learning culture through improved personalization, collaboration and knowledge retention have made investments in LEPs.

Healthy learning cultures with a wide range of development opportunities often correlate with higher employee engagement, which often translates to stronger business performance.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: 360Learning; Absorb Software; Coorpacademy; Degreed; EdCast; Fuse Universal; Learning Technologies Group (LTG); Skillsoft; Valamis; Wiley (CrossKnowledge)

Recommended Reading: "Getting Started With a Learning Experience Platform"

"Market Guide for Corporate Learning"

"Real-Time Performance Management Needs Continuous Learning"

D&I in HCM

Analysis By: John Kostoulas

Definition: Diversity and inclusion (D&I) in human capital management (HCM) includes a range of technology solutions to enhance diversity and inclusion in organizations. These solutions aim at maximization of data-driven decision making and specific value drivers, such as transparency, accountability and efficiency, across people processes. Typical processes in scope are talent acquisition, compensation management and talent development/succession.

Position and Adoption Speed Justification: Many organizations take active steps to move on the D&I agenda, through top-down interventions across all stages of people-related decisions, to establish data-driven decision making. But they cannot scale these interventions without technology support. Expectations about depth of technology support are highly variable at the moment. For traditional organizations, these are related to compliance, transactional and process support (that is, storing data, workflows and D&I metrics reporting), while decisions are completely made by humans. In more advanced organizations, technologies are expected to contribute to further stages of decision augmentation by providing actionable analytics or recommendations. They are also expected, to support more profoundly inclusion interventions by tracking the current state of inclusion (and the employees' perception about it), by fostering development of inclusive leaders, and by enhancing application of inclusion into daily activities.

The current vendor landscape of HCM applications supporting D&I includes two main categories:

- An increasing number of HCM suite or specialist (e.g., talent acquisition or HCM analytics) vendors making D&I a distinct element of their roadmap and positioning, delivering applications across the different functional areas. Examples include diversity analytics, employee communications, assessments, learning catalogs/recommendations, performance management models, compensation benchmarks and onboarding features. However, as suite providers focus mainly on the mainstream part of the market, their delivery progress is slow.
- A substantial number of startups providing point solutions across the talent management life cycle. These applications focus on increasing the diversity of the candidate talent pool, augmenting hiring decisions and providing a better understanding of inclusiveness of the organizational culture. Fewer vendors are offering solutions around compensation/pay equity, performance and career/succession. Adoption of these solutions is typically at early stages, and they would all compete for a slice of relatively small organizational budgets dedicated to D&I activities. They will also increasingly face retention issues as HCM suites or specialist vendors increase their own scope of D&I functionalities.

User Advice: Application leaders transforming HCM should partner with HR process leaders to prioritize the specific D&I intervention areas and related HCM technology support required in a 12 to 24 month time frame. These would span across people groups, geographies and business functions, with particular focus on how D&I can eventually scale to their frontline workers. Although we do not have any signs of acceleration for D&I technology demand due to COVID-19, there is a possibility for acceleration due to D&I experienced with home working (e.g., balancing work and home schooling for working mums).

Required technology support D&I functionality should be included in the vendor assessment criteria for both existing and new solutions, allowing for flexibility to accommodate any compliance variations across countries (see "How HCM Technologies Enable Successful Diversity and Inclusion Interventions" for detailed functionality breakdown). Managers are an important user role, and team diversity metrics in manager self-service transactions, such as candidate selection or bonus allocation, will raise awareness at the time decisions are being considered.

Finally, the D&I definition itself is expanding. For example, technological advances for people with disabilities and the widening span of generations in the workplace as people work longer are moving the focus beyond gender and ethnicity to age, disability, thought, neurodiversity and experiential diversity (see "How Product Managers Develop Resiliency With Diversity and Inclusion for the 'Everything Customer'"). Application leaders will best adapt to this continuous change by establishing D&I as a pervasive, cross-process dimension to address within the HCM technology roadmap, alongside process effectiveness and employee experience. They should ensure that they incorporate additional D&I aspects across user groups as vendors expand their coverage.

Business Impact: D&I has been elevated from being just a compliance area for HR to becoming a priority for CEOs. This is due to its clear contribution to business performance and positive employer image, as well as helping to avoid negative publicity and legal action against discrimination. Gartner has been highlighting the effect of diversity in its many forms — experience, social identities, personality, cognitive styles and behavior — toward better decision making, appreciation of customer needs and innovation.

In addition, there is a steady stream of studies where diversity is related with improved profitability (by up to 21% and 33% for gender and ethnic, respectively), innovation revenue, discretionary effort and employee retention. The merits of diversity are magnified when an organization achieves a culture of inclusion and is able to scale D&I across the organization and particularly toward front-line workers (see "Predicts 2019: A Dynamic Culture Will Accelerate Digital Transformation").

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: ADP; Diverst; Greenhouse; Learning Technologies Group (Affirmity); MESH Diversity; Pipeline; Qlearsite; SAP SuccessFactors; Syndio; Textio

Recommended Reading: "How HCM Technologies Enable Successful Diversity and Inclusion Interventions"

"How Product Managers Develop Resiliency With Diversity and Inclusion for the 'Everything Customer'"

"How HCM Technologies Can Scale Inclusion in the Workplace"

"Predicts 2019: A Dynamic Culture Will Accelerate Digital Transformation"

Virtual Assistants in HCM

Analysis By: Ranadip Chandra; Helen Poitevin

Definition: Virtual assistants in human capital management are software applications integrated with other HCM applications that work at human voice (or text) command to assist employees in completing HCM-related tasks or requests. They also provide information via a smartphone, tablet, computer or specific device.

Position and Adoption Speed Justification: Even though the conversational UIs in enterprise applications lag behind their counterparts in consumer domains, there are early signs of virtual assistants (VAs) in human capital management (HCM) that understand the context behind a user's request and go beyond scripted responses. Most of such examples are built by VA specialists deploying their solutions in HCM technology and not often by the mainstream vendors of HCM domain. For mainstream vendors, the capability sometimes still resembles automated FAQ tools (knowledge-repository-based) or simple chatbots that utilize decision trees to perform an action.

During the COVID-19 pandemic phase and the subsequent rapid shift to remote work, VAs were leveraged extensively for answering queries related to HR policies, health and safety, extended leaves and corporate announcements. This is one of the fastest growing emerging technology in HCM and all cloud HCM suite and extended ecosystem vendors are committed toward investing further in this capability.

The application of VAs has started gaining maturity in HCM domain, as seen in recruiting, HR service management, enrolment for benefits process, onboarding and HR functional insights (e.g., flight risk analysis). However, a lot of progress is still needed for VAs to become the primary UI for employees interacting with HR processes.

Gartner analysts have observed some barriers that are slowing down the adoption pace:

- Support for languages other than English varies widely and will have an impact on the adoption of VAs within various geographies.
- Often, vendors overstate the capabilities of their VA, leaving users frustrated if the VA can't understand the real intent behind the interaction and only delivers a list of predetermined options. Exception handling will be crucial in how VA is adopted.
- Some vendors have prioritized HR functional use cases ahead of employee-facing ones to influence the decision maker. But employee centricity should be forefront in this application.

For the foreseeable future, deployments of VA in HCM are likely to remain disparate. Examples include recruiting chatbots for candidates; conversational UI developed over an existing HCM suite or custom-built to interface with multiple enterprise applications; or even as just an overlay with other conversational platforms such as Amazon Alexa or Slack. Oftentimes, it is common to observe virtual assistants purchased as an enterprisewide tool and then configured for HCM as well as other domains to achieve economies and innovation of scale.

User Advice: We recommend the following:

- Determine the use cases (e.g., upcoming shift reminder, learning content suggestion, performance and goals submission) for VAs that are best applicable to your organization and will result in maximum benefit to your employees.
- Assess the solutions on their ability to self-train based on the existing database and historical records of employee transactions. Additionally, any solution's ability to resolve a query successfully based on different variations of phrases and keywords of the same question should be a "litmus" test for its effectiveness.
- Address the skills gap arising due to the adoption of these emerging technologies. Associates with skills in natural language processing (NLP), APIs and robotic process automation (RPA) can lead integration projects that empower VAs to interpret data from sources other than HCM and write back, applying natural language generation (NLG).
- Address cybersecurity and data privacy concerns arising from VAs that access the location and private data of employees. Gauge the comfort level of your employees before exploring any scenarios.

Business Impact: Virtual assistants have the potential to transform user experience and save significant operational costs by automating several high-volume, low-complexity HCM processes:

- VAs can free up a lot of time for HR leaders, line managers and supervisors to focus on more productive, higher-value-generating work.
- Tasks related to reporting and data analytics require employees to follow complex, step-by-step technical processes. VAs can reduce these processes to one single step. For example, an employee asking a VA: "How is our recruiting pipeline performing?" and receiving an immediate answer, rather than painstakingly analyzing multiple reports and coming to a conclusion.
- As VA maturity grows with the use of deep neural networks (DNN) and NLG, VAs will act and take decisions on behalf of employees in certain repetitive situations. This will open up avenues to combine event-driven programming with VAs and transform many HCM processes from user-initiated actions to user-response actions.
- If VAs in the HCM space closely match the efficiency of their consumer technology counterparts — such as Google Home or Amazon Alexa — the ease of interaction will result in greater adoption of HCM processes. This will especially be the case for those employees who do not interact through the regular UI (e.g., sales and entry-level employees).
- For non-English speakers, having a VA support native language could dramatically improve the adoption of the HCM suite. In a lot of geographies, VAs may need to be proactive in initiating conversations.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: Acuvate; Espressive; IBM; IntraSee; IPsoft; Kronos; Oracle; Ramco Systems; socrates.ai; SAP (SuccessFactors)

Recommended Reading: "AI Use Cases in Human Capital Management Technology"

"Market Guide for Conversational Platforms"

"Market Guide for Integrated HR Service Management Solutions"

Employee Productivity Monitoring

Analysis By: Helen Poitevin; Rashmi Choudhary

Definition: Employee productivity monitoring technologies use automated data collection and analytics to report on employees' activities, time spent, work locations and work patterns with a view to measuring and improving workforce productivity.

Position and Adoption Speed Justification: Employee productivity monitoring is not new. However, the digitalization of work has increased the ability to automatically track and monitor work activities. In response to the COVID-19 pandemic, many organizations have needed to shift many of their employees to remote working very quickly. This has significantly increased the level of interest in employee productivity monitoring technologies.

Many solutions that offer employee productivity monitoring functionality were built for other purposes, such as endpoint or digital experience monitoring, insider threat detection and business process management.

The practice of monitoring employees for the purpose of improving productivity is rife with ethical challenges. It can easily cross the "creepy line" and may create a toxic work culture. It can also make organizations the subject of news articles decrying poor practices.

Furthermore, productivity is highly context-specific. Measuring the volume of activities and time spent is frequently a very poor proxy for measuring productivity and impact.

Adoption rates will therefore vary. They will be higher in contexts where many employees carry out relatively routine and standardized work. Examples include employees in shared service centers and customer contact centers and other frontline workers. In contexts where employees do a significant amount of nonroutine work, employee productivity monitoring may be unsuitable.

User Advice: Application leaders focused on the digital workplace and seeking to invest in employee productivity monitoring technologies must:

- Inform their investment decisions through careful investigation of the data sources, user experience design and initial use case for tools that offer employee productivity monitoring. Most of the technologies used to monitor productivity were not built for that purpose. The data they collect can vary significantly and may not be representative of the work that employees actually do.

- Ensure that the technology is implemented ethically by testing it against a key set of human-centric design principles. Mitigate risks by pursuing a careful communication strategy. Messaging should align with the enterprise's response to the COVID-19 pandemic. Employees should be notified about the purpose of the data collection and how measurement is done — they must be able to see how it can benefit them.
- Consider carefully which worker populations will be within the scope of any monitoring efforts, and which populations will be excluded. The data collected may alternatively be used to improve the employee experience.
- Use a checklist to ensure that the purpose and scope of data collection is in line with how the data will be used and that it will help employees do their best work. Application leaders must be able to explain the purpose of measurement and the data and types of calculation methods used. They must be explicit about who will see what data in support of which kind of decision. They must carefully evaluate how employees are likely to respond and what impact the monitoring will have on them.

Business Impact: The significant increase in remote working as a result of the COVID-19 pandemic has generated substantial interest in employee productivity monitoring technologies.

When used to identify and alleviate the challenges that remote workers face, these technologies can improve both the employee experience and business outcomes. Insights derived from employee productivity monitoring technologies can help leaders make changes at the organization, team or individual employee level to improve overall productivity. In some instances, employees can benefit by improving their time management skills.

However, these technologies also pose a substantial risk. They can create a toxic environment if their deployment is perceived to indicate a lack of trust. An employer's public perception — and therefore its brand — can be damaged, if stories of poorly implemented and communicated tools reach the press.

For many organizations, the risks will outweigh the potential benefits. Many tools may therefore be decommissioned, once a first set of insights has been generated and analyzed.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Adolescent

Sample Vendors: ActiveOps; ActivTrak; enaible; Fin Analytics; Hubstaff; Microsoft (Workplace Analytics); Nexthink; Sapience; WorkMeter; WorkPuls

Recommended Reading: "Getting Value From Employee Productivity Monitoring Technologies for Remote and Office-Based Workers"

"Market Guide for Digital Experience Monitoring"

“Market Guide for Employee-Monitoring Products and Services”

“Workforce Planning — How to Use Technology to Support Planning Processes”

AI in Talent Acquisition

Analysis By: Jason Cerrato

Definition: Artificial intelligence (AI) in talent acquisition (TA) increases automation of the recruitment process and provides decision-making support to candidates, hiring managers and TA professionals for process steps such as talent sourcing, screening, marketing, interview scheduling and initial onboarding. A variety of “point” solutions are available: chatbots, virtual assistants and AI-enabled sourcers. Increasingly, however, solutions have been evolving into end-to-end offerings.

Position and Adoption Speed Justification: Inquiries from Gartner clients indicate steady demand from organizations to leverage AI capability across front-end talent processes, such as sourcing, job targeting and distribution, and predictive analytics, to improve time-to-hire and quality-of-hire metrics. However, there is also confusion among buyers regarding the influx of new vendors, compared with the progress of existing suite offerings. The number of vendors bringing solutions to market has grown significantly over the past couple of years, and TA leaders are overwhelmed by the sheer number of new entrants claiming better solutions. Adoption is therefore lagging behind the pace of innovation and level of capability, which is resulting in a crowded field of vendors and an increasing number of solutions and packages.

Other adoption factors include the use of technology to enhance the skill set of recruiters and expand the reach of undersized teams in terms of generating talent pools and engaging with candidates. As the market matures and organizations have become more comfortable with it, AI applications have advanced further into the recruitment process to help with functions such as assessment, screening/job matching and compliance.

As solutions mature and organizations grow in confidence, adoption and utilization will increase quickly. Early experiments will turn into enhanced automation technologies for recruiters and TA operations.

User Advice: AI adoption for TA is most commonly approached from the outside-in, from the top of the recruitment funnel down. This serves two purposes. The first is to utilize AI for automation and initial engagement in order to address high volume and transactional work early in talent workflows. The second is to enable organizations to get comfortable with these new technologies and identify any potential learning curve associated with the use of AI at a distance from the latter half of the workflow where hiring occurs. As organizations grow more comfortable, we have seen adoption of AI applications move deeper into the hiring process, to support recruiter efficiency (with virtual assistants) and the candidate experience (with career concierges), end to end.

Currently available AI solutions are often specialized and singularly focused. Therefore, when human capital management (HCM) application leaders look to add these technologies, they often have to layer solutions and manage integrations as they incorporate AI. Concurrently, HCM suites are

moving quickly to incorporate AI in their talent modules as a way to counter the single-use-case vendor approach.

For organizations implementing AI into TA processes, we recommend applying AI into processes that are highly transactional and will extend the reach of a team. This will enable staff to focus on more strategic relational work that can become “high touch.”

Automated decision making is most applicable to less complex, highly transactional talent audiences (associated with low-skilled “gig” assignments, medium-skilled temporary assignments, and high-volume repeatable searches). Highly skilled nonroutine roles and executive positions may be less suitable targets for AI and automation. However, by applying AI strategically, TA teams can reallocate staff for high-touch assignments, and use AI for more repeatable tasks.

Implementation recommendations:

- Prioritize use cases.
- Invest in automation and efficiency-based solutions.
- Investigate claims of talent-matching/screening/assessment capability.
- Deploy technology strategically with a view to placing team member resources where they can deliver most value.
- Assess the candidate experience, employer brand and legal implications of incorporating AI.

Set realistic expectations. Today, many people assume that a single AI application can automatically find, select and hire talent. More realistically, AI is enabling enhanced automation of recruitment operations and candidate outreach to increase engagement and productivity, and to uncover additional information to assist human decision making.

Invest in AI capabilities suited to solving your organization’s key talent challenges. These may include:

- Handling a high volume of traffic.
- Difficulty in finding specialist and rare profiles.
- Supplementing a low volume of traffic with additional sources.
- New graduate hiring.

Business Impact: AI solutions can improve the productivity of recruiters and hiring managers. They can also enable organizations to make better use of resources involved in the sourcing, screening, interviewing and assessment process. Investments in AI can map to common key performance indicators for recruiting, such as:

- Candidate experience.
- Diversity and inclusion.

- Quality of hire (candidate ranking, planning, competency/skills identification and mapping).
- Cost per hire.
- Time to hire.
- Process efficiency.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: AllyO; Candidate.ID; Eightfold; Entelo; Hiretual; HireVue; HiringSolved; IBM Watson; Leoforce; SeekOut

Recommended Reading: "AI Use Cases in Human Capital Management Technology"

"The Future of Talent Acquisition Requires Talent Engagement and Systems of Action"

"Finding and Building Talent in the Digital Talent Ecosystem"

Employee Experience Tech (EXTech)

Analysis By: Ron Hanscome

Definition: Employee experience technology solutions are a diverse collection of employee-facing solutions designed to influence and improve the employee experience and organizational culture. This spans worker interactions with HR, managers, teams and communities of interest/practice within work environments. Disciplines such as behavioral economics and positive psychology underpin solution design to maximize worker adoption and encourage embracing of a desired mindset and/or behaviors that align with the organization's culture, values and objectives.

Position and Adoption Speed Justification: The need to attract and retain workers initially drove HR's focus on optimizing the overall employee experience (EX) in 2019. The current COVID-19 pandemic and recovery landscape has added impetus to improve EX within the context of the abrupt shift to supporting remote work environments. HCM technology user experience (UX) is only one component of overall EX, but providers are now incorporating some EX principles in their application designs. Previous approaches focused on productivity and employee sentiment retrospectively and via highly structured job categories. Now, the challenge is to fully accommodate a more fluid future of work. To address this, EXTech solutions seek to increase adoption, engagement and performance through such elements as recommendations and nudges. Additional elements include mindfulness as well as connecting workers to others and to common purposes. EXTech concepts have appeared in various disciplines such as gamification, social responsibility, wellness, industry-specific WFM solutions, and social recognition tools. Some talent management and HCM suite providers are also attempting to incorporate these ideas into their solutions. This is despite their original system architectures having been designed when the focus was primarily on supporting HR practitioners and managers conducting people development tasks. The continued

variety of approaches reinforces this concept's emerging nature, although there has been increased provider development and end-user adoption over the past three years. These factors, together with increased resonance of the market with EX, have resulted in typical progression of EXTech in this year's Hype Cycle.

User Advice: HCM EXTech solutions generally support multiple activities — such as regular feedback, coaching, encouragement, learning, competition, participation, personalization and recognition. These activities usually embed game-style mechanics to increase adoption. They may also allow employees to provide input on work-related factors, such as schedule quality, task best practices and working conditions. Workers may also be able to indicate impressions and provide feedback that can be used to determine relative levels of engagement. Teams may take accountability for their own team's health and be able to raise certain work-related issues or point out organizational barriers to various management levels. These solutions can also cultivate a sense of purpose, belonging, or well-being by encouraging participation in an organization's volunteer, social or wellness events. Since encouraging desired behaviors is the primary goal of these EXTech solutions, they may be embedded in daily employee activities, and adapted to various work environments.

Application leaders focused on HCM technology transformation should:

- Assess each solution's underlying philosophy and design approach to determine fit for your culture and context. Be wary of HCM vendor marketing hype surrounding EXTech over the next two years, including claims that solutions will meet "requirements" that are often vaguely defined.
- Realize that the success of any EXTech initiative is more reliant on an employee-centric culture and mindset than technology. Any solution, even one that applies the latest neuroscience and AI-driven techniques, won't be able to overcome a culture that can't embrace a growth environment.
- Carefully assess and pilot some of these solutions, concepts and techniques. Because EXTech solutions are still emerging, there is no commonly defined feature set, and their relative impact can differ greatly across different worker types and industries.
- Deploy EXTech tools in such a manner that employees can quickly and clearly see the benefit for themselves, their teams and the overall organization.
- Use leading design practices during implementation, including personas and employee journey mapping. This will help to ensure that deployed functionality actually improves the quality of the various interactions that make up the worker's experience.
- Make EXTech tools part of both the short-term response to the pandemic disruption and a longer-term strategy for developing a deeper relationship between organization and employee in a post-COVID-19 time frame.

Business Impact: After many years focused on trying to measure employee engagement, leading organizations have realized that it (along with retention) is fundamentally a downstream result of an optimized EX. Worker motivation and engagement are key in work environments that demand ever-

increasing levels of innovation, creativity, imaginative problem solving and collaboration across teams. Disciplines such as neuroscience, behavioral economics and positive psychology have taught us a great deal about motivating individuals. EXTech solutions that use these techniques to support an ever-improving experience can help drive motivation and engagement, thus contributing to business performance and outcomes, and a broader pivot to a more agile culture. They can also help to improve the overall employment value proposition over time by better matching EX with the organization's brand characteristics and ambitions.

Benefit Rating: High

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: BI WORLDWIDE; Centrical; Humu; Limeade; Reward Gateway; SelfDrvn; Unit4 (Intuo); WeSpire; Workhuman; WorkJam

Recommended Reading: "How to Harness Voice of the Employee Insights for Continuous Employee Experience Improvement"

"Employee Experience Primer for 2020"

"Improve Employee Experience to Drive Improvements in Customer Experience"

"Support Managers With Better HCM Tools to Improve Employee Experience"

"Cool Vendors in Human Capital Management Enhancing Employee Experience"

"Cool Vendors for Employee Experience and Enablement in the Digital Workplace"

Next-Gen Talent Assessments

Analysis By: Ron Hanscome

Definition: Next-gen talent assessment tools combine advanced neuroscience, analytical, data-driven and gamification techniques to assess the degree of skills, job/role or cultural fit of individual workers. They generate insights on skills, competencies and other characteristics that can apply to both current and potential future roles, thus spanning the full talent life cycle. They do this by comparing individual trait profiles to those of high-performing workers within a given role.

Position and Adoption Speed Justification: Assessments in HCM technology are nothing new, as organizations have applied I/O psychology principles to predict a candidate's job and/or cultural fit since the 1950s. However, traditional providers either deliver standardized, prepackaged assessments, or build expensive custom job-specific instruments. Both of these types are mainstream and have progressed off the Hype Cycle.

Emerging next-gen talent assessment solutions are continuing to disrupt traditional providers by combining three primary techniques to varying degrees:

- Applying more-extensive data collection and analysis to established cognitive and behavioral models coming from neuroscience disciplines. More compute power and data storage enables the inclusion of many more data points to better predict performance in a given role or organization. This is usually done by having each individual complete a set of tasks, and comparing the results to an aggregate profile of top performers. Proponents claim that this approach reduces or eliminates bias, as the tasks within the assessment are free from linguistic or cultural bias.
- Incorporating AI, including deep learning (machine learning via deep neural networks), NLP and pattern analysis across large datasets to predict fit or skills level. AI-driven assessments are intended to improve predictive accuracy by "learning" over time, without being explicitly programmed, based on an ever-growing body of data, usage analysis and other observations.
- Leveraging a more immersive, gamified user experience that either turns tasks into "games," or simulates real-life job situations. Leading vendors allow configuration via adaptive digital art and advanced software logic to accommodate different product brands and job roles within an organization.

While these types of assessment show promise, the fact base of verifiable outcomes is still emerging. In addition, providers vary widely in how they combine these three techniques, and there is a lack of marketplace agreement on which techniques are best for a given use case. Another complexity is the emerging deployment of skills ontologies to improve the consistency and accuracy of skills and competency management, for both recruiting and internal talent development. While early results are promising, properly linking existing assessments to these ontologies may add to technical and administrative overhead in the short term. However, increased interest in using these assessments has overcome these issues sufficiently to result in continued steady progress up the Hype Cycle in 2020.

User Advice: Your HR department may be using skills tests or custom assessments for multiple organizational roles during the hiring process. Determine via a planning exercise readiness for a more structured, consistent and pervasive approach. Note that many emerging assessments are a better fit for high-volume hiring and/or early career recruiting use cases.

When selecting vendors, evaluate the combination of techniques used to predict fit, and ask the vendor to show how the model's accuracy has improved over time. Also ask if near-term product roadmaps include connecting assessments to any emerging skills ontologies.

Check customer references to verify real-world results, as hype often runs ahead of actual results across a range of job types. Also examine how the assessment integrates with recruiting solutions and populates the talent profile of your core HR system or talent suite.

Ensure that talent leaders and SMEs partner with the chosen vendor(s) to build a dataset that identifies "top" performance for the affected jobs/roles to reduce bias and validity concerns. During implementation and ongoing usage retest and revalidate as that initial dataset grows over time.

Determine your organization's willingness to "opt in" to sharing aggregate job and/or performance data to enable benchmarking by various segments.

Balance progress of internal measures with performance against aggregated external benchmarks, as both are valid comparators. Also, evaluate contractual terms and conditions to ensure that local standards for privacy and ethical use of data are maintained.

Evaluate your organization's readiness to extend assessment use beyond recruiting to post-hire talent management, as many are also suitable for career development and coaching. This is especially relevant during pandemic recovery, where internal talent redeployment and reskilling needs are likely to increase.

Business Impact: Next-gen talent assessments can help reduce administrative costs. They can also improve the effectiveness of workers by more accurately identifying best-fit candidates for critical roles. Finally, they can reduce costs and improve productivity, since best-fit candidates generally have a longer tenure, both in their initial jobs and within the enterprise longer term. This can, in turn, reduce direct offboarding and replacement costs, decrease new hire training costs, and speed their time to competency.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Arctic Shores; AssessFirst; HireVue; Infor; Knack Corporation; Logi-Serve; OutMatch; pymetrics; Predictive Index; PredictiveHire

Recommended Reading: "AI Use Cases in Human Capital Management Technology"

"Layer Talent Acquisition Tools to Captivate and Connect With the Talent You Need"

"Incorporate Technologies for Considering and Assessing Talent Into Your Hiring Process"

"Finding and Building Talent in the Digital Talent Ecosystem"

Virtual Assistants in Recruiting

Analysis By: Jason Cerrato

Definition: Virtual assistants in recruiting are applications of artificial intelligence (AI) technology and chatbots that support the operational side of talent software driven by recruiters, as well as the engagement side of the attraction and application process for candidates. Solutions often support functions on both sides of the process, across multiple user roles with the goal of driving end-to-end efficiency.

Position and Adoption Speed Justification: Gartner client inquiry calls and vendor briefings increasingly touch on the incorporation and adoption of virtual assistants in recruiting. In the last year, the adoption of virtual assistants in talent acquisition (TA) has increased as organizations seek to optimize processes, as well as move increasingly virtual, and/or respond to downsizing or

expedited needs as a result of COVID-19. Although there are numerous vendors in this space, many of the prominent providers in this space have seen rapid customer growth and investment.

Vendor solutions and early organizational adopters have used these tools to support recruiters dealing with high-volume, high-transactional activities early in the recruitment process such as applicant inquiry, interview scheduling, feedback collection and offer/onboarding execution. As interest has grown and the market has matured, solutions have been moving deeper into the hiring process to support both recruiters and applicants in more advanced activities such as candidate reengagement, assessment and screening, and strategic campaigning.

User Advice: The use of virtual assistants in recruiting should be applied strategically, either to extend the reach of a talent acquisition team, or to strengthen its capabilities. For the former purpose, team virtual assistants should be deployed. By expanding sourcing and screening capacity, as well as increasing levels of initial frontline responsiveness, TA teams can gain a broader reach and higher levels of candidate interaction. Virtual assistants can be deployed to improve a team's search proficiency with AI, as well as potentially to overcome biases through data-driven decision making. Additionally, these technologies can automate processes to identify and develop talent pools, freeing up team members to focus on strategic tasks such as building relationships with priority candidates. An AI-supported recruitment process should increase efficiency and therefore help the recruitment team to focus on the right talent at the right time.

When considering whether and how to incorporate virtual assistants into a technology stack, application leaders supporting HR should:

- Ask about their current technology providers' plans to incorporate AI- and machine-learning-driven insights into offerings.
- Conduct proofs of concept with providers to test offerings' performance in context, and to get an idea of how that performance may improve over time, given the relative immaturity of the AI- and machine-learning-driven TA market. At this stage, avoid vendor lock-in.
- Speak with early-adopter reference customers about their experiences with particular solutions and how they worked with the solutions' providers.
- Identify and prioritize the recruitment steps that will benefit most from AI and machine learning in order to improve efficiency and TA outcomes, in accordance with their organization's TA strategy and particular challenges.
- Use both technical and business outcome criteria when evaluating AI-driven TA technologies and deciding whether to "build or buy."
- Invest selectively in emerging TA tools and services. Adopt an experimental mindset, as the TA sector will continue to attract major investment and startups will proliferate.

Business Impact: For recruiter-facing solutions, virtual assistants can help to:

- Initiate candidate engagement
- Source and screen resumes

- Coordinate schedules
- Deliver links to assessments
- Mimic recruiter correspondence

For candidate-facing solutions, virtual assistants can help to:

- Assist with FAQs and navigation
- Deliver a conversational job search
- Provide process oversight and tracking
- Coordinate travel and logistics
- Career coaching

By expanding recruiters' reach and potentially uncovering new sources and overcoming bias, virtual assistants can also support diversity and inclusion efforts. Additionally, their use to increase candidate engagement and support team responsiveness can improve the candidate experience.

Through constant searching, advanced screening, increased communication and AI matching, virtual assistants can improve common key performance indicators for recruiting, such as:

- Quality of hire
- Cost per hire
- Time to hire
- Candidate experience

As "extra pairs of hands" that command an advanced set of skills and work around the clock, virtual assistants can complement an existing team, increase overall recruiting-process efficiency, and assist with 24/7 coverage and virtual recruiting efforts.

Finally, the use of virtual assistants for enhanced automation may eventually lead to a decrease in the number of administrative staff needed on recruiting teams. However, used strategically, it can also allow for the role of recruiting staff to be reimagined and redirected to more value-added activities.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: AllyO; iCIMS; jobpal; Leoforce; My Ally; Mya; Paradox; SmartRecruiters; Wade & Wendy; XOR

Recommended Reading: "AI Use Cases in Human Capital Management Technology"

“The Future of Talent Acquisition Requires Talent Engagement and Systems of Action”

“Improve Recruitment Operations With Assistant Technologies, Event-Based Tools and Automation”

Hyperautomation in HCM

Analysis By: Amanda Grainger

Definition: Hyperautomation combines technologies to automate improve and augment an organizations processes. Integration is used to improve hands-off points, business process management (BPM) to orchestrate performance improvements. Robotic process automation (RPA) is used to execute repetitive tasks that vary nominally. Artificial intelligence encompasses several technologies such as machine learning for pattern recognition and document digestion. Combining technologies in this way drives efficiencies.

Position and Adoption Speed Justification: Hyperautomation provides tremendous opportunity to improve HCM efficiency and reliability particularly across HCM transactions and workflows that are subject to errors, bottlenecks and delays. When used strategically, hyperautomation has the potential to accelerate organizational performance and save significant operational costs.

Gartner analysts have observed some barriers that are impacting the pace of hyperautomation adoption. While the concept of hyperautomation has been adopted in some use cases in some transactional domains such as payroll, recruitment operations and service management, contextualizing and adopting hyperautomation across other HCM domains remain slow and at initial stage.

The majority of vendors are already using, to varying degrees, intelligent services, machine learning, adaptive intelligence and integrator connectors; however, they have yet to demonstrate combined hyperautomation broadly across the full suite. There is evidence of RPA in payroll, driving some payroll processing alerts, along with data migration utilizing RPA to speed up data validation and implementation. Alerting and data migration are the most common use cases for RPA in HCM.

The levels of expertise HR teams currently have with integration, BPM, RPA and other tools combined will be one of the biggest barriers to hyperautomation.

Often, HCM vendors overstate the capabilities of hyperautomation, leaving HCM users frustrated that it does not scale across the whole suite or cater to the nuances of their specific organization.

For the foreseeable future, deployments of hyperautomation in HCM are likely to remain appealing to high transaction domains such as payroll, workforce management, recruiting and service management.

User Advice: Application leaders must invest early in this capability to scale HCM to the demands of a global enterprise. Augment workflows and process and shorten the time to perform routine tasks. Doing so will enable HR teams to serve a customers with greater efficiency and speed and exploit human knowledge at scale. Develop a hyperautomation strategy with measurable objectives to:

- Establish a center of excellence, shared services center or community of practice to continually develop and scale expertise in-house.
- Create an automation journey across all HCM processes. Identify where diminishing low-value work can benefit from process optimization and automation to reduce hand-offs and labor costs, especially in highly repeatable and low-value workflows. This will help to reutilize human capital in more value adding places.
- Reduce errors and complexity in processes.
- Engage expertise from colleagues in other parts of your organization with BPM, RPA, PaaS, AI, integration and other tools to help guide and execute your hyperautomation HCM strategy successfully.
- Improve the employee and HR experience and boost productivity.
- Start with provisioning direct integration services/APIs to other enterprise platforms, applications and devices.
- Determine hyperautomation use cases for HCM more broadly than those already in existence to deliver maximum benefit to managers, employees and organizational performance. Continue to challenge the state of automation and look for new opportunities.

Business Impact: Deploying hyperautomation dynamically via the use of different types of tools across multiple HCM domains will have a positive impact on service delivery, reduce errors rates and increase overall HR availability. Hyperautomation has the most impact when deployed across the full spectrum of business operation ecosystems. Positive impacts of hyperautomation on business operations include:

- Efficiency: Cost optimization, strategic investment, reutilization of human capital
- Scalability: Serving more customers, scaling globally, exploiting human knowledge
- Reliability: Reducing errors, increasing availability, improving speed, improving service delivery

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: ADP; Automation Anywhere; Blue Prism; Ceridian (Dayforce); IBM; Kronos; Pegasystems; SAP; UiPath; Ultimate Software

Recommended Reading: “Hyperautomation Technology Toolkit for Organizations”

“Magic Quadrant for Robotic Process Automation Software”

“Cross-Functional RPA Use Cases”

PaaS (Platform as a Service) in HCM

Analysis By: Chris Pang

Definition: Platform as a service (PaaS) allows a cloud HCM vendor to selectively expose APIs and native development tools for application extensibility. HCM PaaS is mainly used on an individual client basis to attain "last mile" or custom application functionality, which inherits the native properties of the HCM SaaS application (security model, user experience, workflow, reporting, etc.). Some providers have also developed an ISV ecosystem and marketplaces to commercialize applications with broader appeal.

Position and Adoption Speed Justification: Not all HCM providers have PaaS capabilities, among those that do, there are significant differences in sophistication, maturity and capabilities. Most offerings today are aimed for use by large organizations rather than small and midsize. Adoption is increasing but it is far from being mainstream and mature and together with current levels of availability leads to modest advancement on the Hype Cycle.

User Advice: Use PaaS to support processes that are not possible through by configuring the underlying SaaS application and/or when using a third-party point solution is not ideal due to cost, integration complexity or functional fit. Do not confuse extensibility with customization because there are deliberate boundaries with PaaS. Ensure developers (internal IT, business analyst or external resource) are knowledgeable in the use of PaaS tools because suboptimal use can cause performance issues. Budget for additional training and support resources because PaaS extensions will require ongoing integration, maintenance and potential evolution work.

Business Impact: PaaS can be a lower cost and faster alternative to purchasing a third-party packaged application to close a functional gap in your HCM provider's application set. Use cases include process complexity, organizational uniqueness and/or geographic requirements that are not planned in the vendor's roadmaps (e.g., additional screens and workflows to help with unexpected events such as COVID-19 home working tracking). Done correctly, PaaS extensions and solutions offers a seamless user experience with native reporting and analytics.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Ceridian (Dayforce); iCIMS; Oracle; SAP SuccessFactors; Ultimate Software; Workday

Recommended Reading: "What You Need to Know About HCM Platform as a Service"

"Top 10 Trends in PaaS and Platform Innovation, 2020"

"The Key Trends in PaaS and Platform Architecture, 2019"

"Platform as a Service: Definition, Taxonomy and Vendor Landscape, 2019"

At the Peak

Voice of the Employee

Analysis By: Ron Hanscome

Definition: Voice of the employee (VoE) solutions collect and analyze employee opinions, perceptions and feelings related to their experience. They use engagement surveys, feedback tools and other data sources to gather employee sentiment and infer preferences, opinions and well-being. VoE solutions deliver insights with actionable guidance to help improve employee engagement, experience, productivity and performance. They can become a key element of a firm's "sense and respond" feedback loop when connected with HCM and digital workplace technologies.

Position and Adoption Speed Justification: Gartner clients are struggling to respond to the rapid pace of change (both internal and external) and the associated effects on their employees from ongoing digital transformation. Many organizations continue to utilize a formal annual engagement survey as the primary means of gathering feedback from employees. Therefore, they have difficulty tracking the effect of more frequent changes in perception as their employees react to organizational changes and external market events. Many organizations have begun augmenting annual surveys with pulse, forum-based indirect and inferred feedback tools to better capture ongoing employee perceptions, feelings, opinions and ideas.

While there has been substantive acquisition activity over the past four years by major providers to either develop or augment capability, no VoE solution yet supports all the needed data collection and analytical methods. In addition, the market has yet to coalesce around a more standardized set of capabilities for VoE processes, enabling technologies, and services. While VoE remains early on the HCM Hype Cycle, the increasing number of vendors embedding it in their offerings has driven increased market interest. The immediate, urgent and forced transition to remote work environments during the first half of 2020 has become an equally compelling driver of end-user demand. Organizations now want to use VoE to communicate care, listen to employee concerns, prioritize investments and quickly take action where necessary. Regardless of the uneven pace of economic recovery by geography and industry, VoE solutions will see increased market interest over the next five years at a minimum, as a more continuous approach to employee listening will be more critical than ever before. These factors have resulted in a quicker progression for VoE in 2020.

User Advice: Application leaders tasked with transforming HCM should help HR and business leaders to:

- Adjust your VoE strategy to accommodate faster HCM and business decision timelines, including choice of metrics and measurement intervals.
- Determine what types of VoE "listening" are desired (direct survey-based, focus group-based, indirect) and how much weight will be given to each type. No VoE solution fully supports all types of VoE listening, so integrating multiple providers will be a common outcome.

- Define the degree to which managers will be taking an active role in VoE listening. Also, assess the readiness of the organization to tightly link VoE to other talent processes or work activities. Results of these two tasks will help drive tool selection.
- Select the right data sources, collection/measurement methods, and enabling technology options. Assess how well the provider applies techniques like NLP and event-triggered listening.
- For innovations, evaluate and implement appropriate enabling technologies on a pilot basis, and listen to early feedback from employees and managers. Be prepared to swap out technology components quickly, based on changing business needs and maturity of options.
- Make VoE initiatives actionable by equipping stakeholders to respond quickly to anonymized, aggregated insights coming from VoE data.

Business Impact: More comprehensive collection and analysis of employee feedback combined with actionable guidance can result in:

- Earlier problem identification and improved responsiveness due to expedited data collection and direct delivery of insights and recommendations to managers.
- Deeper feedback for managers on team perceptions and performance.
- Better data for longitudinal analysis.
- Improved employee engagement and retention.
- More efficient idea management.

Over the longer term, a VoE approach can contribute to improving an organization's overall employee experience and employment value proposition. This is because potential employees are more likely to be attracted to a work environment where their voice is heard. VoE also has the potential to improve workforce performance and productivity over time.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Confirmit; Culture Amp; Glint; Humanyze; Peakon; Perceptyx; Qlearsite; SAP Qualtrics; Ultimate Software; Willis Towers Watson

Recommended Reading: "2019-2021 Strategic Roadmap for HCM Technology Investments"

"Measuring Employee Engagement: Past, Present, Future"

"How to Harness Voice of the Employee Insights for Continuous Employee Experience Improvement"

"Market Guide for Voice of the Employee (VoE) Solutions"

Freelancer Management Systems

Analysis By: Kaitlynn Sommers

Definition: A freelancer management system (FMS) is a platform that enables direct communication between hiring managers and freelance workers. An FMS generally provides algorithmic job matching, worker classification, workflow automation, payment processing and performance feedback.

Position and Adoption Speed Justification: The market for FMSs is emerging and has high growth potential. FMSs enable organizations to locate, negotiate with, and collaborate directly with nonemployee professionals to fulfill short- and long-term resource requirements. FMSs often focus on specific skills or types of workers, ranging from unskilled labor to highly specialized professionals. FMSs typically maintain public talent pools, but some also support private talent pools.

Organizations are experimenting with how to incorporate freelancers into their talent strategy, but most are still working out how to use FMSs in conjunction with existing vendor management systems (VMS). In many cases, there is not yet a formal strategy for engaging with an FMS vendor.

Human capital management, VMS and procure-to-pay vendors are introducing direct sourcing capabilities, which could accelerate adoption of FMSs. The economic impact of COVID-19 may also accelerate adoption of FMS as organizations seek new ways to get work done in times of financial uncertainty. Hiring and working with freelancers is done remotely through FMSs and can be executed on a project basis with less financial impact and risk than hiring a full-time employee. On the other hand, the potential for changes in legislation and for worker misclassification presents a challenge to swift adoption. As a result, FMSs will progress at a moderate pace along the Hype Cycle as awareness of them broadens, their benefits are proven and desire for them grows.

User Advice: Application leaders responsible for services procurement initiatives should work with HR, procurement and legal teams to develop a contingent workforce strategy. This strategy should include examining the benefits and risks of using freelancers and an FMS. Assess when and where the organization may be using freelancers today. Gartner often initial engagements at a hiring manager or department level before a formal strategy is created.

Organizations that spend significant sums annually on nonemployee labor should evaluate FMSs as a means of streamlining and improving existing collaboration with freelancers. Small and midsize companies may also want to review them as means of consolidating the use of freelancers and other independent workers. If your organization is using a VMS today, explore the direct sourcing capabilities and integrations with FMSs.

Before engaging with an FMS, evaluate the talent quality and breadth of skills available, based on the organization’s needs outlined in the contingent-workforce strategy. A key differentiator of each FMS is the quality and type of freelancers engaged.

Business Impact: Freelancer management systems offer organizational improvement in three main areas:

- **Access to talent:** Organizations can access public talent pools and search for freelancers available globally based on skill set. Alternatively, organizations can develop private talent pools filled with alumni, retirees, "silver medalists" (second-place job candidates) and known freelancers.
- **Operational efficiency:** Engaging directly with freelancers eliminates a layer of the traditional sourcing process. Algorithmic job matching identifies qualified candidates. Hiring managers can view freelancers' profiles, credentials and work history. Onboarding is quick, and managers and freelancers can communicate and collaborate in real time. Once a manager accepts a work product or deliverable, the system executes payment using various options, including escrow funds.
- **Compliance:** Built-in compliance tools ensure that workers are properly classified and the completion of any required background checks and drug tests. FMSs also track the receipt of all required tax and employment documentation.

Despite the positive impact of FMSs, we give them an overall benefit rating of only moderate. These solutions address only a segment of the overall nonemployee labor market and tend to support significantly less spending than VMSs. However, we expect FMSs to continue to grow in popularity and spending throughput over time as organizations increase their use of nonemployee labor.

Benefit Rating: Moderate

Market Penetration: 1% to 5% of target audience

Maturity: Emerging

Sample Vendors: Catalant Technologies; Comet; Expert360; Field Nation; Fiverr; Kalo; Shortlist; Toptal; Upwork; WorkMarket

Recommended Reading: "Market Guide for Services Procurement Solutions"

"Learn How the Future of Work Is Transforming Employee Experience Globally"

"Predicts 2019: Sourcing and Procurement Application Vendors Embrace APIs and the Ecosystem Approach"

Next-Gen WFM

Analysis By: Sam Grinter

Definition: Workforce management is a suite of functions designed to help manage hourly paid workers. Core functions of WFM include: time and attendance; scheduling; absence management; and task management. Next-generation WFM is the result of the following trends impacting the market: automation of the manager experience; employee experience; virtual assistants; new platforms; the flexible workforce.

Position and Adoption Speed Justification: Of the features that comprise next-generation (next-gen) workforce management (WFM), new platforms and employee experience are the most mature and readily available. Furthermore, during the past year, automation of the manager experience has matured as an increasing number of vendors have developed capabilities that reduce the administrative burden of WFM for managers. However, all five features still require continued development, testing and adoption before we can describe any of them as mature for most vendors.

The two biggest challenges for next-gen WFM to progress to mainstream adoption are:

- A relatively slow application refresh rate for WFM in comparison with other HR/HCM technologies, such as recruiting or performance management. The average life span of a WFM application is eight to 10 years, meaning that it will be some time before the majority of WFM customers consider reinvesting in it.
- A deeply fragmented market by industry, geography and by organization size. For now, it is predominantly still the largest and most innovative vendors in the market that are investing in next-gen WFM, and these vendors do not serve the entire market. It will be some time before smaller and laggard vendors begin to invest in developing all features included in next-gen WFM.

Drivers of next-gen WFM include:

- Vendors actively selling next-gen WFM over legacy WFM products.
- Buyers refreshing old WFM investments in order to bring relatively basic functions, such as employee self-service, online.
- Response to COVID-19 has sparked demand in the evaluation and redesign of workforce management processes and technologies. Examples include contact tracing and eliminating the physical touchpoints required when clocking in/out via the use of facial recognition as a credential (and in some cases incorporating aspects of thermal measuring to identify workers who are displaying symptoms of COVID-19) to improve workplace hygiene.

User Advice: Application leaders responsible for transforming HCM should:

- Work with operations, finance, procurement and HR leaders to ensure that their organization's WFM requirements reflect an updated and holistic perspective that incorporates the needs of workers, managers, administrative staff and executives.
- Create a plan to migrate any on-premises WFM applications to cloud solutions within the next one to two years in order to gain access to the latest capabilities and, where applicable, leverage early-bird migration discounts.
- Assign a stakeholder for WFM applications to prioritize and oversee investment.
- Recognize the potential of these emerging WFM capabilities. Develop a business case for a pilot deployment to quantify the ROI, and to justify wider rollout of the initiative.

- Evaluate the extent to which WFM can support the “New Normal” way of working for the response and recovery phases to COVID-19.

Business Impact: Next-gen WFM offers the ability to both augment and transform existing business processes for organizations with hourly paid workers. Properly executed, the benefits of next-gen WFM include: improved employee engagement; reduced time that managers spend on administrative tasks; improved usability of the WFM application and reduced cost of training; easier management of both employees and contingent workers. As a result of the high impact of next-gen WFM, any application leader responsible for HCM, and senior HR leaders in organizations with hourly paid and/or shift-based workers, should place a high priority on creating a strategy around next-gen WFM.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: ADP; Ceridian; Kronos; Legion Technologies; Mark Information; Quinyx; Ramco Systems; Shyft; WorkForce Software; WorkJam

Recommended Reading: “Prepare Yourself for the Future of Workforce Management”

“Market Guide for Workforce Management Applications”

“Understanding the Fragmented Workforce Management Solution Market”

“Toolkit: Vendor Selection for Workforce Management Applications”

“Best Practices for Workforce Management Deployments”

Unified Multicountry Payroll

Analysis By: Ranadip Chandra

Definition: Unified multicountry payroll is an approach to deploying an integrated solution by an organization that is present in a minimum of two countries to manage the data, processes and operations of payroll function. The strategy can be to keep it “in-house,” where software with sufficient localization is utilized for calculations, and/or “outsourced,” where a business process outsourcing (BPO) service provider or aggregator takes the responsibility of processing payroll across multiple countries.

Position and Adoption Speed Justification: There is a strong desire among application leaders to merge disparate, country-specific payroll systems in a unified platform supported by a single provider. However, due to limited availability of localization, realistically, the most optimized model for a unified multicountry payroll strategy is a hybrid of two or three different payroll solution types. The preferences for types vary according to the volume of workforce per country, the appetite of the organization to take on more or less responsibility for payroll, and the availability of suitable payroll

solutions. Countries with a high volume of workers are generally managed in-house, while moderate- and low-volume regions are managed through payroll BPO providers and aggregators, respectively. There is also a developing fourth category — payroll integration and compliance software — an additional application layer that integrates in-house and outsourced applications as a central interface.

In recent years, Gartner analysts have observed particularly strong momentum toward unified multicountry payroll projects. Factors driving this momentum include:

Integration management — Maintaining integrations with several payroll systems is cumbersome and makes real-time reporting and analysis difficult. Generally, the larger multicountry solutions offer out-of-the-box integrations that seamlessly connect with major HCM suites.

Process standardization — Identical processes for running payroll and support make it easier to ensure business continuity if a central team or a secondary team in a different geography can ensure uninterrupted operations in case an emergency, such as COVID-19, impacts a local team.

Efficiency improvement — Maintaining a legacy on-premises application can be problematic and costly. Technology advances and new functionalities can improve the efficiency of running both in-house and outsourced payroll.

Vendor consolidation — Easier vendor maintenance through consolidation should result in more opportunities for cost savings and improved service/product quality.

Reporting and analytics — There is strategic value in having unified payroll, data reporting and analytics.

Even if the investment in HCM technology as part of an organization's digital transformation witnesses lukewarm response in the immediate post-COVID-19 phase, investments in unified payroll strategy will likely continue. This is because unified payroll strategy, given its ability to reduce ongoing operational costs, will be part of organizations' technology optimization investment initiatives.

However, there exist a few barriers to the proliferation of unified multicountry payroll. These include:

- There is currently no solution — neither BPO/aggregator nor software — that can be considered truly global in coverage. But some solutions such as ADP Streamline and SAP ERP HCM payroll processing do have localizations for a large number of countries.
- In many geographic regions such as Latin America, the choice of providers remains too limited, forcing global enterprises to deploy country-specific solutions.

User Advice: Application leaders responsible for transforming payroll should consider the following advice:

- Develop a payroll transformation strategy that is suitable for your organization and prioritize execution based on your geographic footprint of providers, volume of workers and existing/planned HR application investments.

- Evaluate vendors on your roadmap to expand localization. If your organization has plans to expand its geographical footprint in the next five years, it's better to think ahead and partner with a payroll provider that will support this journey. Create a shortlist of suitable vendors that fit with your payroll strategy.
- Consolidate global payroll solutions and data to improve reporting, auditing and planning capabilities. This will enable easier vendor management, integration between payroll and other HR/HCM/finance applications, and improve internal payroll operations efficiency.

Business Impact: A unified multicountry payroll strategy will improve vendor management efforts as it removes all the complexities of managing multiple versions of SLA adherence, maintenance and issue resolution, and governance endeavors. It will also pave the way for better integration, consistency in compliance and fewer errors in calculation. Other benefits include:

Business continuity planning — The support of secondary data sites for failover processing, multiple delivery centers with similar setups and strong recovery time objective (RTO) metrics improve significantly under a unified operation than in a combination of disparate systems.

Financial cost budgeting — A unified data reporting layer ensures granular visibility into payroll costs such as overtime allocation and compliance breach settlements, thus helping with cost allocation budgeting and workforce planning.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: ADP; Ascender; Ceridian; CloudPay; Neeyamo; Papaya Global; Payslip; Ramco Systems; Safeguard Global; SAP

Recommended Reading: "Market Guide for Multicountry Payroll Solutions"

"Toolkit: Vendor Selection for Multicountry Payroll Solutions"

"Market Guide for HCM Suite Applications"

Digital Adoption Solutions

Analysis By: Melissa Hilbert

Definition: Digital adoption solutions improve adoption of multiple tools across the organization. The software walks a user through business processes across multiple products, providing a consistent user experience, eliminating in some cases, manual entry, and providing visually clear paths to complete tasks. It enables employees to be onboarded faster and improve productivity. Sales, HR, ERP and digital workplace are key use cases but this technology applies to all functional areas in an organization as well as external products sold by an organization.

Position and Adoption Speed Justification: Digital adoption solutions are evolving at a fast pace. They should be used to increase overall adoption and ROI of purchased point solutions. These solutions increase usage of multiple point solutions, helping employees gain efficiency and provide a faster time to full performance for new hires. The largest use case is for sales onboarding to get them up to full productivity faster utilizing multiple point solutions. The second use case helps with process change management. The technology requires little technical involvement and deploys quickly. It is deployed mainly on top of cloud solutions showing little, if any, degradation in performance of the original software; although in some cases they can be deployed with legacy on-premises solutions. Analytics are evolving and use of simple bots is emerging. The larger vendors can provide quantifiable evidence that can attest to improved performance and justification for the expense of a digital adoption solution. Digital adoption solutions do not replace formal training or sales training solutions but rather reinforce formal learning.

User Advice: Application leaders should investigate these solutions where there is lack of adoption for a required application such as sales force automation (SFA) or Office 365 (O365) as a first use case within a job role. If there are multiple applications that are required for full connection of work, these should be considered as a bundled purchase to minimize pricing of the overall solution. Make sure to include employees in the design and testing of the workflows and to benchmark and track improvements to performance.

Business Impact: Digital adoption solutions can provide high value to an organization looking to improve adoption of existing tools. Performing tasks more quickly can enable new employees to become fully productive faster and existing employees to change rapidly as business processes change. For example, tenured sellers will be able to focus more on selling than the execution of tasks. The solution provides the best path to accomplish tasks resulting in the elimination of manual and “offline” data input and tracking.

Digital adoption solutions are relevant for any organization in any vertical where an SFA, HR, ERP or digital workplace solution is used. They are most helpful for when:

- There are multiple solutions that need to be adopted for a user to perform their job
- Tasks are complex
- Tasks are performed infrequently
- Business processes are changing frequently

For external use cases where your company sells software, consider OEMing a DAS. Its capabilities help with onboarding, user adoption and increased customer satisfaction. While the initial use case is for sales, it should be considered for other parts of the organization such as HR, ERP, procurement and digital workplace.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Appcues; AppLearn; Apty.io; Digital Attitude; InsideBoard; Pendo; Toonimo; Userlane; WalkMe; Whatfix

Recommended Reading: "Increase Sales Productivity With Digital Adoption Solutions"

Continuous Employee Performance Management

Analysis By: Jeff Freyermuth

Definition: Continuous employee performance management tools enable managers and employees to more frequently track progress toward goals, capture peer and 360-degree feedback, execute check-ins, and provide and receive performance and development feedback. It may also now include objectives and key results (OKRs), coaching, managing one-to-one preparation and follow-ups, and pulse engagement surveys.

Position and Adoption Speed Justification: Hype for continual performance management remains high and adoption continues to accelerate. Client inquiry fielded by Gartner now often focuses on integration with existing HCM and traditional performance systems, rather than simple exploration. Organizations that were adopters of niche point solutions are considering replacement with functionality offered by broader platform providers. There has also been notable market consolidation of performance management specialist vendors, particularly as employee engagement, coaching, and continuous performance management tools and practices merge. These shifts indicate that continual performance management functionality is moving quickly through the adoption cycle. Vendors in this space have also shifted their messaging to tap into the much-hyped trends of reimagining employee performance management, digital workplace initiatives, and in response to COVID-19. In the short-term, with more folks working remotely from home and goals being adjusted due to COVID-19, we have seen an increased interest from buyers.

Most continual performance applications support goal alignment, frequent and broadly sourced feedback, social feedback and social recognition, along with pulse surveys and other ways to collect employee feedback (engagement, ideas, informal feedback). The new generation of performance management tools extend employee experience through investment in workspace interfaces, conversational interfaces, feedback process flexibility, goal collaboration and transparency, and progress updates. Natural language processing (NLP) and machine learning are also being applied to analyze textual performance assessments and suggest actions to both employees and managers. NLP is also being used to detect unconscious bias and encourage inclusion in feedback and assessment verbiage. Interest in adoption and advancement of continuous feedback capabilities and strategies remains high.

User Advice: Redesigning performance feedback processes and adapting them to the reality of the pace of business is a vital step for HR and IT leaders of HR transformation initiatives to take. The shift to remote work due to COVID-19, has only increased interest in continuous performance management. Many leaders and employees in a broad range of organizational contexts will benefit from refreshed processes that are adapted to the reality of their day-to-day work. There is a substantial demand for continuous feedback to help motivate workers, initiate early intervention in potential issues, and to align goals across the enterprise, especially when a high degree of

collaboration and innovation is needed. Technology, when well implemented, can help accelerate the adoption of these new processes and approaches to performance feedback.

HR and IT leaders supporting HCM transformation should:

- Evaluate existing employee performance management tools and practices.
- Deploy solutions with an approach to performance management that supports the right cadence and activities.
- Evaluate new processes and tools from both the employee and the manager's viewpoint.
- Track current market disruptions and use pace-layering methodology to develop a foundational, long-term plan.
- Invest in robust organizational change management practices to ensure the adoption and impact of any selected technology supporting employee performance management.

Business Impact: Employee performance management, when well done, leads to higher levels of employee motivation, engagement and focused productivity. When employees, teams and business units are all working toward goals aligned to a well-formulated corporate strategy and vision, strong business results generally follow. In a fast-paced business environment and in the new world of remote work, regular feedback and check-ins helps make sure that workers are focused on the right things, are growing and adapting to the changing nature of their work and work environment. This will allow organizations and its employees to develop a core set of competencies which allow them to adjust course rapidly and effectively when new opportunities and new challenges arise. In addition, well implemented continuous feedback processes that incorporate support for workers on how to both give and receive feedback enables a growth mindset at both the individual and the organizational level. The growth mindset has been shown to correlate with improved personal and organizational performance.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: 15Five; Betterworks; Centrical; Culture Amp; Impraise; Kazoo; Lattice; Quantum Workplace; Reflektive; WorkBoard

Recommended Reading: "Real-Time Performance Management Needs Continuous Learning"

"Get Ready for the Convergence of Employee Performance and Engagement"

Machine Learning in HCM

Analysis By: Helen Poitevin

Definition: Machine learning is a technical discipline that can extract certain kinds of knowledge and patterns from a series of observations. Machine learning techniques, when applied to human

capital management (HCM), translate most frequently into data-driven recommendations and predictive insights in domains such as recruiting, learning, employee engagement, compensation, benefits, HR service management and career development.

Position and Adoption Speed Justification: Many major HCM vendors and a number of startups promote the use of machine learning as a way to provide advanced workforce-related insights. Common use cases for machine learning include models that predict the likelihood of an employee voluntarily leaving the organization, and models that evaluate how likely a candidate is to perform successfully in a given role. They also include recommendations for learning content, career paths, benefits packages (particularly in the U.S.), manager actions and compensation. Many of these use cases rely heavily on natural language processing (NLP) techniques to ingest data from job postings, job descriptions or resumes to support the analysis of jobs and competencies. NLP is also used to identify themes and sentiment from data in long-text fields in employee engagement surveys or performance feedback forms.

Because of the growing use of embedded machine learning in HCM and talent management suites, adoption will be fast, even if users are not aware they are using it. At the same time, but much more slowly, HR will increase its ability to conceive of, build and apply its own machine learning models in homegrown analytical applications or individual analytics projects.

User Advice: Talent analytics and other HR leaders should hire or nurture staff that can understand machine learning and advanced statistics, in order to articulate the benefits and limitations of the associated techniques.

They should be able to evaluate solutions based on:

- The relevancy and accuracy of the output of the models
- The ability to modify or build models
- The nature of the data being used to generate results
- The data lineage of the data
- The analytical output (for example, the individual flight risk score, the job fit score or the theme detected)
- The ability to leverage analytical output in other analytics workflows, or display results in various parts of the application
- The results as presented to end users

With prepackaged solutions, HR leaders should work with talent analytics leaders or other specialists to evaluate capability. They should pay particular attention to how information is presented to end users and ask the following questions:

- Does the application present sufficient information to make it clear how the algorithm reached its conclusion, and does it allow the user to override any decisions made by the application?

- What is the best way to interpret and use the results?
- How could HR leaders, business leaders, managers and employees use the results, in both beneficial and harmful ways?

To test the relevancy of machine learning models, and the benefits of the insights they generate, HR and HR IT leaders should test the usage of the insights. They should use a control group and evaluate if the group using the analytical insights shows significant performance improvements (for example, decreased attrition, increased employee engagement or increased quality of hire).

Because machine learning in HCM involves personal data about workers, digital ethics principles need to be applied. The employee-employer relationship is complex and unequal. Responsible employers take this into account and put the necessary controls in place to ensure proper building and usage of machine learning techniques for employee data.

Business Impact: Employees are the biggest cost category for most organizations and can be a source of competitive advantage. Organizations that understand their people better, and use their insight wisely, will outperform those that do not. They hire better and have a more engaged workforce, less discrimination and better managers. Machine learning in HCM has the potential to transform how organizations look at the workforce, as well as the efficiency and productivity of certain processes. Advanced analytical models that show the links between workforce practices and business results can help business and HR leaders invest in the right talent and the right HR programs to support that talent. Machine learning techniques, which reveal the factors important for team and organizational success, can help business leaders act on tough situations earlier, or make more timely decisions to avoid pitfalls.

Benefit Rating: Transformational

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Cornerstone OnDemand; Deloitte (iNostix); One Model; Oracle; Qlearsite; SAP (SuccessFactors); Ultimate Software; Visier; Workday; ZeroedIn

Recommended Reading: “Leaders Need Talent Analytics and Insights to Drive Change and Improve Organizational Performance”

“AI Use Cases in Human Capital Management Technology”

“Technology Options for Talent Analytics”

“Use Data Science to Address Employee Flight Risk”

“Magic Quadrant for Data Science and Machine Learning Platforms”

“Five Ways Artificial Intelligence and Machine Learning Deliver Business Impacts”

Midoffice and Back-Office WFO

Analysis By: Sam Grinter

Definition: Midoffice and back-office workforce optimization is designed to improve the operational performance of midoffice and back-office workers, who typically hold administrative and support roles. Functionality includes tools for productivity and task management, forecasting and scheduling, worker evaluation and training, capacity planning, data reporting, analytics, and consultancy services.

Position and Adoption Speed Justification: Midoffice and back-office workforce optimization (WFO) continues to be a focus for employers that are looking to both achieve a more efficient labor spend for groups of similarly skilled workers doing repetitive and common tasks, and to ensure that workers are motivated and productive. To date, most activity has been in the retail banking, professional services, insurance, claims processing, other financial services and business process outsourcing sectors. It is expected to spread across additional industries as a means of gaining greater control over operating costs, and elevating both short- and long-term performance levels. However, to date, such demand from additional industries has been limited.

Gartner has been monitoring this market for several years. The total volume of calls on this subject remains relatively low and does not appear to be growing. This reflects the relatively niche demand for midoffice and back-office WFO in the market. Furthermore, the acquisition of eg Solutions by Verint Systems in September 2017, for example, supports the view that the market opportunity is limited and relatively niche. The primary challenge for this technology to overcome, in order to make it to mainstream adoption, is the lack of awareness of the potential benefits of midoffice and back-office WFO by potential customers.

One aspect that may accelerate traction is the use of the WFO approach for new use cases, with one vendor noting that there has been some interest for the HR operations use case, for example.

The functionality of the tools is usually robust, and the services provided are generally of good to high quality.

User Advice: Almost all organizations should expect a return on investment (ROI) from deploying midoffice and back-office WFO, but the extent of the ROI will depend on the existing levels of efficiency in their operations. Buyers should work with the vendors to build a business case for investment.

Midoffice and back-office WFO varies in terms of complexity. The most basic form typically involves dashboarding and reporting tools. The more complex involves more change management engagements, based on taking workers out of silos to enable managers to change and redirect workers to different tasks according to the level of demand. Buyers should be careful to select the type of midoffice and back-office WFO that best suits their desired outcomes from the initiative.

Buyers should also look beyond the operational cost benefits of deploying a midoffice and back-office WFO solution, because it can also enable a more rounded approach to employee performance management and well-being. The workflow within a midoffice and back-office WFO

suite provides incremental value that cannot be obtained by deploying stand-alone functions, such as employee performance management and workforce management. Therefore, map out the value of these associated workflows to justify an integrated WFO strategy. Furthermore, deploying midoffice and back-office WFO can also be used to support HCM transformations, process automation and other digital workplace initiatives that impact the nature of work or the provision of labor for the midoffice and back office.

Business Impact: WFO deployed in the midoffice and back office typically increases the productivity of workers. The benefit of this is either a reduction in full-time equivalents (FTEs), or the ability for the same number of FTEs to undertake a greater volume of work, while also maintaining or improving the quality of that work. A key concern of workers is being monitored, so it will be necessary to educate them as to the purpose of the initiative and to position the initiative in terms of what advantages it may offer to the workers. For example, more stable levels of demand on worker time; greater visibility for both managers and workers regarding worker performance; more equitable treatment based on empirical measurements; and an improved working environment.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Early mainstream

Sample Vendors: ActiveOps; Aspect Software; Calabrio (Teleopti); Enlighten; NICE; Pegasystems (OpenSpan); Verint Systems; West Monroe

Recommended Reading: “Achieve Business Cost Optimization With Human Capital Management Technology”

Sliding Into the Trough

Employee Wellness

Analysis By: Sam Grinter

Definition: Employee wellness is deployed by organizations to encourage worker well-being through lifestyle change. Components of employee wellness include mobile apps, wearable devices, cloud-based services with analytics dashboard to track status, on-demand motivational and instructional content, organized events, and rewards. Application components include an app store, communities and social networking capabilities, as well as gamification services (such as leaderboards, goals progression and challenges).

Position and Adoption Speed Justification: Over the past four years, the level of customer inquiry on the subject of employee wellness has remained low, and some of the larger vendors in the market have pivoted away from pure physical wellness and toward wellness as part of a wider employee experience, and organizational culture initiatives as part of the employment value proposition. Some interest in employee wellness has been driven recently as a measure to support workers during COVID-19. It is likely that such deployments will take the form of short-term

initiatives rather than lasting engagements. As such, this short-term increase in demand is unlikely to change the fortunes of the employee wellness market in the long term.

If employee wellness is to progress to mainstream adoption, then it has to be much less about hardware devices and more about the value that wellness applications can deliver via a mobile platform. Furthermore, the concept of wellness should be developed beyond physical fitness to incorporate elements of mental, social and financial well-being, thus furthering the potential impact of wellness initiatives and decoupling wellness from the wearable devices market. Finally, a further potential avenue is for other wellness initiatives to be included as part of a broader employee experience and organizational culture initiatives as a means of bolstering the employment value proposition.

User Advice: Application leaders attempting to transform HCM should consider investing in employee wellness to support the welfare of their workers. Promoting digital dexterity, engagement and other soft skills makes employee wellness relevant to digital workplace efforts. Employee wellness can be initiated by anyone in an organization. It can start as a grassroots effort to reduce stress, to become more physically active, or to create a greater sense of team spirit. Activities can include walking meetings, individual challenges, and even team competitions. Wellness coaches, and recognition and rewards tools, can play a key role in encouraging participation and building communities. Employee wellness becomes more strategic and transformational when connected to formal wellness programs and HR processes, and when it includes the involvement of senior leadership. Furthermore, employee wellness can influence needs for workplace and workspace design. It should also be factored into bring your own device (BYOD) and bring your own app (BYOA)/consumer HR app programs.

Employee wellness can be delivered via point solutions, benefits management systems, and HCM suites. To reduce the time to deploy and to improve integration, buyers should first review the wellness capabilities offered by existing benefits and HCM providers. If the capabilities of these offerings are not suitable, wellness point solutions should be considered.

Business Impact: The traditional rationale for wellness programs has been to reduce healthcare costs borne by the employer. The evidence now suggests that wellness initiatives offer limited and indirect healthcare cost savings, and other initiatives (such as disease management programs) are more effective at reducing healthcare costs. An emerging viewpoint is that organizations need to look beyond the cost argument and examine how a consumer-driven wellness initiative can positively influence employee engagement, experience, retention, unexplained absence, absence due to illness and digital dexterity, as well as organizational, cultural and business productivity.

Business and IT leaders who encourage their workforces to come together in voluntary group activities and contribute toward something that has personal and work-related value can help to promote shared behaviors, a greater sense of community, and a culture of well-being. This reflects positively on employees and employer alike.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Apple; EnLyte; Even; GO Mammoth; Jiff; Limeade; Virgin Pulse; Vitality; Welltok; Whil Concepts

Recommended Reading: "Employee Wellness: A Shift From ROI to Employment Value Proposition"

"Market Insight: Build a Comprehensive Wellness Platform for Maximum Consumer Engagement"

"Market Insight: Disruptive Macro Trends for 2025 Personal Tech Market — Holistic Wellness"

Employee Recognition and Reward Systems

Analysis By: Chris Pang

Definition: Employee recognition and reward systems enable organizations to recognize employees "in the moment," which can be event-driven, peer-to-peer and/or supervisor-to-employee. The result in a "shout out," virtual badge, "like," and/or points that can be redeemed for a gift. This provides a record of recognition that can used as input to a continuous or end-of-year appraisal process. Recognition systems are increasingly associated with EXtech, but it remains a separate technology category and market.

Position and Adoption Speed Justification: Technology offerings for employee recognition have grown rapidly as vendors address the industry trend of employee engagement, culture and the enablement of continuous performance management practices. Solutions come from best-of-breed providers, human capital management (HCM) and talent suite providers, and general business application providers. Solutions with reward capabilities (e.g., gift cards and products) remain the domain of specialist vendors. However, mainstream usage of recognition and reward technology for "in the moment" recognition is still relatively low, with many organizations still using recognition platforms purely for years-of-service awards.

User Advice: As organizations move through the COVID-19 crisis, they should leverage recognition technologies to encourage and maintain cultural cohesion and employee engagement. Use a tactical approach to implement a recognition technology to meet discrete needs, such as informal feedback, years of service and life moments. Frame it as part of a strategic plan to measure and improve employee engagement and culture. Gain executive support for maximum effect and budget to properly maintain the program. Consider different types recognition within a single system, such as event-driven (e.g., internal referrals for new hires), top-down, peer-to-peer, external-to-internal and group recognition. Focus recognition comments on positive feedback. Make recognition an evolving program with potential expansion to more stakeholders and new use cases. Engage with providers who can proactively assist you with ongoing program management and best practice. Amplify the impact of recognition with a reward component. Choose systems appropriately which have local language and in-region fulfillment services (if using rewards as well) to simplify tax and delivery complexity.

Business Impact: Used correctly and broadly, recognition and reward initiatives improve employee engagement, productivity, culture, employee retention and business performance. Look for

opportunities to use recognition and reward technology to bolster existing talent process. Leverage the recognition technology as additional data points for performance appraisals, use recognition during and post onboarding to amplify the "welcome" for new employees. Recognition and reward technology can also be used for health and safety programs, training, social and corporate responsibility programs, as well as more sophisticated culture change initiatives.

Benefit Rating: Moderate

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Achievers; BI WORLDWIDE; Kudos; Madison; Maritz Motivation; O.C. Tanner; Qarrot; WooBoard; Workhuman; Workstars

Recommended Reading: "How HCM Technologies Can Support Cultures That Perform in Uncertain Times"

"How to Select a Recognition and Rewards Solution to Boost Employee Motivation and Engagement"

"Get Ready for the Convergence of Employee Performance and Engagement"

"Culture of Quality Reward and Recognition Program Library"

"Use Recognition and Reward Programs to Boost HR and Talent Effectiveness"

"Social Employee Recognition Systems Reward the Business With Results"

Workforce Planning and Modeling

Analysis By: Helen Poitevin

Definition: Workforce planning and modeling includes tools that enable HR professionals to plan and monitor the evolution of their organization by aligning talent supply and demand to various business scenarios, such as transformation through innovation, growth, rationalization or divestiture. Functions include organization visualization and modeling, support of restructuring, head count management, head count budgeting and forecasting, and strategic workforce planning.

Position and Adoption Speed Justification: Workforce planning and modeling is a discipline that helps companies match workforce supply to demand. It has become a critical element for navigating the impact of COVID-19 pandemic and beyond.

However, no single workforce planning and modeling solution can support all of the highly variable planning time frames, contexts and scopes, which include:

- Organizational visualization, organization charts and analytics

- Organizational modeling to support restructuring exercises
- Resource and capacity planning, workforce management and workforce optimization
- Aligning skills to activities
- Head count planning
- Forecasting and budgeting linked to the financial operating plan
- Strategic workforce planning

Most offerings promoted as “workforce planning” address only one or two of the contexts and scopes listed above. Some financial planning and analysis (FP&A) solutions have workforce planning capabilities. Human capital management (HCM) suite providers may include native workforce planning functionality, direct customers to their FP&A solution, or both. A number of specialized point solutions also continue to support workforce planning initiatives.

Adoption of workforce planning and modeling technology will increase as:

- Technology evolves to better support advanced simulation and data modeling
- Businesses turn to these tools to support crisis response and manage organizational design, transformation and workforce planning more efficiently and effectively

Additional AI investments enabling improved and automated identification and tracking of skills and competencies will further the potential of workforce planning tools. They will soon be able to answer questions like: “Is our workforce capability sufficient to take advantage of this strategic business opportunity?” and “What workforce will we need in our post-pandemic renewal scenarios?”

Labor market analysis solutions are also emerging as critical ways to evaluate external market conditions that could impact organizations’ ability to acquire needed talent.

User Advice: Workforce planning and modeling brings business, HR and finance leaders together. It provides them with a shared view of the current workforce, and of the workforce-related changes that must occur to meet strategic and operating objectives.

Application leaders transforming HCM should carefully consider the following advice:

- Understand the varied kinds of functionality behind the term “workforce planning and modeling.”
- Start with the planning approach that is most relevant to your organization to promote understanding of its structure and workforce composition, and how it will meet current and future demands. For example, organizations with a robust and mature strategic planning process will be ready to adopt strategic workforce planning, and thereby better integrate workforce-related action plans with strategic business investment or divestiture plans. Organizations in which business leaders feel they have very little visibility and control in relation to meeting their operational resource planning requirements will not be ready for more strategic workforce planning efforts. However, they will more readily embrace head count planning and budgeting, organizational modeling and resource planning tools that provide critical insights into

workforce costs and capabilities, and enable business leaders to align these with business objectives.

- Be prepared to explain the time frame and scope of your organization's workforce planning efforts.
- Work progressively toward an end state where all planning time frames and scenarios can be implemented and aligned.
- Invest in a strong talent analytics foundation, which is a prerequisite for workforce planning.

Business Impact: Operational workforce planning and resource planning tools can significantly increase forecast accuracy and enable business, HR and finance leaders to optimize workforce size to meet business demand at the right cost. Strategic workforce planning is a significant differentiator for organizations because HR brings a strategic view of workforce capacity and market availability of resources. This helps HR and finance leaders evaluate what workforce-related investments will be necessary to meet short- and long-term strategic business goals, and whether these are related to post-pandemic renewal, digital business transformation, growth, or changes through merger and acquisition or divestiture activities. Organization modeling technologies help organizational leaders evaluate the impact of business transformation on organization structures, teams and individuals. They also facilitate the operational execution of organization design, and changes both to organizational hierarchy and individual employment contracts.

Benefit Rating: High

Market Penetration: 5% to 20% of target audience

Maturity: Adolescent

Sample Vendors: Anaplan; Concentra; Dynaplan; Ingentis; Nakisa; Oracle; SAP SuccessFactors; Vemo; Visier; Workday

Recommended Reading: "Workforce Planning — How to Use Technology to Support Planning Processes"

"Leaders Need Talent Analytics and Insights to Drive Change and Improve Organizational Performance"

"AI Use Cases in Human Capital Management Technology"

"Magic Quadrant for Cloud HCM Suites for 1,000+ Employee Enterprises"

"Magic Quadrant for Cloud Financial Planning and Analysis Solutions"

"Finding and Building Talent in the Digital Talent Ecosystem"

Digital HR Document Management

Analysis By: Ron Hanscome

Definition: Digital HR document management tools enable enterprises to store, access and manage HR documents while complying with multijurisdictional regulatory requirements for security and retention. Common functions include multilevel security, document tagging to enable search, notification and approval, digital signature support and robust auditing/traceability. Typically, these solutions integrate with administrative HR systems, but they may also link to other HCM technologies and identity management solutions.

Position and Adoption Speed Justification: Organizations continue to struggle with how to best manage the volume of HR documents (paper and electronic) needed for regulatory and corporate policy compliance. Traditional methods (such as archiving paper files in HR offices or warehouses) have existed for many years. However, they lack the quick access/search capabilities needed to respond to legal discovery or compliance requests and audits, especially when an organization spans multiple locations and geographies. Additionally, paper records cannot be analyzed for missing data or expirations. While many firms have partially digitized basic HR documents, many factors have added to the complexity of this function, including:

- The tendency toward increasing globalization.
- The impact of mergers, acquisitions and divestitures.
- The need for easy employee and manager access, particularly in the context of the abrupt transition to remote work driven by the 2020 pandemic and the sudden inability to access physical documents “at the office.”
- The increase of country-specific regulatory requirements.
- How to grant and manage the right level of access to the appropriate users across HR and operational functions.

As a result, many organizations desire solutions that enable a holistic approach to managing HR documents in a distributed, postpandemic environment. In addition, convergence with HR service management (HRSM) tools continues to manifest. Several document management vendors have added HRSM functionality to their offerings. In addition, several HRSM vendors and HCM suite vendors have added document management, often as an optional purchase. The result is a steady market progression, with adoption continuing to increase in midmarket enterprises over the next five years.

User Advice: Many small or midsize businesses begin digitizing HR documents by utilizing the basic document attachment features of their admin HR system. As organizations grow, they often find that these rudimentary capabilities do not meet their requirements and seek more robust solutions.

Providers have entered this market from multiple adjacent categories. These include:

- Traditional records management vendors that have developed digital HR document management software, in conjunction with services, to help clients convert existing paper records to digital.

- Content services platforms that have developed extended capabilities to comply with HR's more stringent security and confidentiality needs.
- HCM software/service providers that have built a specialized module/cloud service that is integrated into their core HR, payroll, benefits, talent and workforce management offerings.
- Point solutions that may cover multiple geographies and deliver very granular security models, potentially with the ability to specify where digital documents are physically stored. This is particularly relevant to clients with operations in the EU, due to the latest EU privacy regulation (GDPR) that went into effect in May 2018.

Application leaders looking for more robust capabilities should:

- Determine requirements based on underlying business growth strategies and whether they include new locations in countries with differing regulations. Also consider the extent to which remote work will persist in the postpandemic renewal phase, as a majority remote workforce will, by nature, increase the need for digitization.
- Develop a strategy around HR document governance, which may include an effort to deal with any existing backlog of paper documents.
- Deal with the fact that implementing the right solution may involve one or more vendors from the above categories.
- Determine if the organization is ready to meld HR document management into a broader HRSM initiative, as this will reduce the pool of vendors that can handle both requirements.
- Evaluate their current content services platform strategy and solution (if the organization has one in place) along with other alternatives.
- During evaluation, thoroughly vet the provider's ability to handle complex requirements. Examples include customer-configurable workflows and notifications, quick document tagging and search, and compliance with records retention policies and government regulations.

Include processes for ongoing conversion of paper to digital, as paper documentation will be a fact of life (albeit a shrinking practice in most countries) for the foreseeable future.

Business Impact: Digitization of HR documents can result in process productivity savings of 15% or greater due to:

- Time saved in searching for information versus manually responding to information requests or compliance audits.
- Delivery of secured access to data for HR staff to support HR processes.
- Risk mitigation of using dated or incorrect legal forms
- Avoidance of fines from regulatory bodies and potential costs of litigation.

Organizations that have grown by acquisition, and have myriad HCM applications (including multiple core HR systems), may also benefit from using this solution to store transactional and unstructured data along with documents to form a unifying HR information hub.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: aconso; Access; ADP; Ceridian; D2Xchange; DynaFile; Hyland (OnBase); OpenText; ServiceNow; Ultimate Software

Recommended Reading: "Market Guide for Integrated HR Service Management Solutions"

"IT Market Clock for Human Capital Management, 2019"

Integrated HR Service Management

Analysis By: Ranadip Chandra

Definition: HR service management tools provide a holistic platform for organizations to manage HR shared services operations and transactional activity. Core functionality includes HR case management (ticketing/routing), knowledge base, content delivery via channels such as portal and mobile, SLA monitoring and single sign-on into transactional applications. Additional functionality may include digital document management, business process management tools, chatbot or virtual agent, and transition management such as onboarding.

Position and Adoption Speed Justification: Many HR organizations move through physical, virtual, or distributed shared services models, especially if they have more than 2,500 employees in multiple locations or geographies. HR service management (HRSM) tools give robust control and standardization to the processes required to provide and manage HR services. Increasingly robust reporting and metrics can give HR shared services centers sophistication on par with some IT service management (ITSM) or CRM service centers.

Demand for HRSM tools was historically driven by a desire to streamline HR administration and accelerated in recent years due to a desire to improve employee service experience as part of digital workplace initiatives. Some organizations are pursuing enterprise service delivery (ESD) which seeks to harmonize multiple employee service centers, such as HR, IT and facilities, to standardize technology and provide consistent employee experience. Most HRSM vendors in the market established themselves as certified partners or approved integrators with HCM vendors, thereby reducing deployment issues with HCM suites. Within the past few years, several HCM suite vendors have natively developed or acquired HRSM capabilities. These HCM suite vendor capabilities range from modest case routing to comprehensive HRSM solutions. Adoption has also been accelerated by ITSM and CRM vendors developing HR-specific products and cross-selling into their customer bases. Vendors across the market continue to innovate. For example, vendors are including chatbots and virtual assistants, curated content, and data retention and privacy

support. Vendors are also applying NLP and ML to case routing, personalizing next likely actions, or surfacing relationships between similar cases.

Deployments of HRSM significantly increased in 2019 and early 2020. Integrated HR service management (IHRSM) is a part of the employee experience layer, especially in remote work scenarios. In the pandemic phase, the HRSM tools were leveraged extensively for retrieving COVID-19 policies, extended leave policies, health and safety rules — essentially service as an automated employee resource center.

User Advice: Application leaders transforming HCM must realize that sensitivities relating to HR issues and data require specialized functionality above that of IT or CRM service management applications. Often, the underlying knowledge base that provides HR content to ESS/MSS portals and to service center representatives must be built from scratch. As shared services centers mature and employee expectations rise, there is an increased focus on the need to deliver consumer-grade experience but with process, workflows and security that is designed specifically for HR requirements. For example, specialized complexity and legislative requirement for union-governed cases, health and safety cases, long-term disability cases, or GDPR compliance is often too complex for incumbent IT ticketing systems.

Customers should ensure that their IT vendor has a successful track record of supporting HR-specific security and business requirements, and not assume that their IT service management application can be used to deliver HR case management. Many custom ITSM extensions are eventually replaced with purpose-built HRSM products once ongoing maintenance and privacy concerns become too cumbersome.

Application leaders evaluating alternatives should:

- Evaluate IHRSM solutions based on their ability to support different functional components covered under HR service management. Generally, the providers tend to be stronger in the functional module of their origin (case management or document management) and weaker in other extended use cases.
- Assess the level of complexity in configuring the HRSM solution with the HR core. It is preferable to pick a solution that offers out-of-the-box integration with the present HCM suite. If any additional tool such as a virtual assistant (e.g., Espressive or IPsoft) is needed for handling employee queries on top of the IHRSM solution, then assess the integration readiness between the two.
- Evaluate the level of domain expertise, templates or case investigation questionnaires needed to support the requirements. The solutions vary in their ability to provide subject matter expertise in employee relationship support.

Business Impact: Building a stable foundation for improved HR administration can significantly cut HR costs, and improve employee service and overall perception of HR. The effective deployment of integrated HR service delivery tools will help reduce HR administrative costs (by up to 30%), while also delivering additional business value and risk mitigation.

Additional benefits include:

- Automated resolutions of cases through consistently applied policies save HR shared services' time and resources and let them focus on more strategic tasks.
- Analysis of most searched keywords in the help desk or chatbot can bring a sense of employee sentiment or challenges they are facing.

Benefit Rating: High

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: BMC; Deloitte; Dovetail; Infor; Neocase Software; Oracle; SAP; ServiceNow; Ultimate Software; Willis Towers Watson

Recommended Reading: "Market Guide for Integrated HR Service Management Solutions"

"To Achieve a Consumer-Grade Employee Experience, HR Must Follow CRM"

"The Reality of ITSM Tools as Enterprise Service Management Tools"

Talent Analytics

Analysis By: Helen Poitevin

Definition: Talent analytics includes tools that enable HR and business leaders to track the performance of HR processes and program investments in conjunction with business performance. It also enables analysis by workforce segment. This improves performance measurement and contextual decision support throughout an organization, thereby improving overall workforce effectiveness and ongoing productivity.

Position and Adoption Speed Justification: Early generations of HR dashboard and scorecard solutions lacked the flexibility to evolve with an individual organization's needs, and were focused more on HR operational metrics. Leading organizations have replaced such reporting tools with prepackaged talent analytics offerings or have built their own data lakes or data warehouses and reporting solutions on generalist BI platforms. These solutions take a more strategic view of the analysis of workforce-related and business performance data, and leverage much-improved visualization and analytics capabilities.

As organizations continue to adopt the latest generation of human capital management (HCM) suite applications, they have also increased their investments in talent analytics technologies, either embedded directly within the HCM suite or in a stand-alone packaged talent analytics tool.

Adoption of talent analytics capabilities will continue to accelerate as these HCM suites are put in place. Midmarket adoption in organizations with fewer than 2,500 employees is also growing as market offerings extend to meet their requirements regarding fast time to value and cost-effectiveness. Acceleration will also happen as business leaders recognize how access to more-

sophisticated talent analytics can improve their ability to make more-strategic and better-informed workforce-related decisions — at the organization, team and individual employee level.

User Advice: Application leaders transforming HCM should work with members of the HR team to set up a broad talent analytics strategy and roadmap that includes the following:

- HR data standardization and simplification (potentially through HR system consolidation)
- Shared HR data quality standards
- Technology investments that enable the scalable delivery of talent analytics results
- Alignment of talent analytics with HR reporting capabilities, HR professional skills development in data analysis, organizational change management for business leaders' adoption of workforce metrics, and linkage to broader enterprise efforts in business analytics

Understand the differing levels of capabilities in the market for different types of solutions:

- **HCM suite analytics —** Many HCM and talent management suite vendors include analytical capabilities. Evaluate these for breadth of capability, flexibility to meet new business requirements, and ability to incorporate other data sources through automated data feeds or through ad hoc inclusion of user-generated data files.
- **Packaged talent analytics solution —** These best-of-breed vendors have dedicated analytical models for workforce-related data, predefined reports and reporting scenarios. These technologies also frequently enable the integration of the business data required in workforce metrics (financials, sales volumes, operations). Evaluate organization readiness, and the level of effort and cost for setting up and maintaining data replication flows, particularly where HR system landscapes are highly complex.
- **Analytics and business intelligence platforms —** Some enterprise BI tools include packaged solutions for talent analytics, or see talent analytics as an additional set of data sources that can be consumed through a standard capability. Evaluate the level of effort required to build dedicated reports, and to integrate new data fields and sources. Balance the economics of building out and maintaining analytics in these platforms versus the cost of acquiring prepackaged metrics, reports and dashboards in a dedicated point solution. Validate capability for building out models to automate segmentation analysis.

Business Impact: Application leaders responsible for transforming HCM should provide business executives and HR leaders with the technology to employ strategic talent analysis tools to better manage talent and support their desired business outcomes. These tools should help line managers and HR understand talent mobility, gaps and risks. This information can be used to inform appropriate talent management strategies (for example, hiring versus development to fill the gaps). Leading companies combine people-related data with other data (for example, finance or sales data, or outside data such as census data). Talent analytics investments, when targeted and specific to a given business problem, provide highly valuable input in the decision-making process, either in terms of workforce-related cost avoidance or future productivity optimization.

Benefit Rating: High

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: Concentra; Crunchr; One Model; Oracle; SAP (SuccessFactors); Ultimate Software; Vemo; Visier; Workday; ZeroedIn

Recommended Reading: "Technology Options for Talent Analytics"

"Leaders Need Talent Analytics and Insights to Drive Change and Improve Organizational Performance"

"AI Use Cases in Human Capital Management Technology"

"Magic Quadrant for Analytics and Business Intelligence Platforms"

"Critical Capabilities for Cloud HCM Suites for 1,000+ Employee Enterprises"

Video Recruiting

Analysis By: John Kostoulas

Definition: Video recruiting is the use of video in the screening and selection aspects of the recruiting process. Typically, a candidate would either be filmed answering prearranged questions or participate in a video conference call. In either case, a recruiter or hiring manager would use the video to get a better sense of the candidate than just through electronic information submission or a telephone interview. In some circumstances, video recruiting could replace one or more formal face-to-face interviews.

Position and Adoption Speed Justification: Gartner inquiries indicate a steady demand from organizations to leverage video recruiting in screening and selection processes to improve the time to hire and quality of new hires, while reducing the overall cost of interviewing (particularly travel costs). Other adoption factors include the increasing prevalence of widely dispersed and virtual teams, and the rise of gig workers, where faster turnaround of applications is required. The early stages of the COVID-19 pandemic significantly accelerated these adoption patterns, which will continue due to the lack of a face-to-face interview option to staff urgent requirements. At the same time, the market has been maturing. Vendors are focusing their investments on enhancement of candidates' privacy, utilization of the latest streaming technologies, and expanding use of analytics and intelligence to leverage unstructured interview data. Most video interviewing solutions are stand-alone, and they partner with talent acquisition solution providers through certified integration and participation in their ecosystems/marketplaces.

User Advice: Consider how video recruiting fits into your overall talent acquisition strategy, and clearly identify your business objectives before investing. Organizations can screen large numbers of candidates more quickly and effectively using video solutions where the candidate is captured via webcam, answering prearranged questions. In addition, organizations that have large numbers of face-to-face interviews, especially with multiple interviewers, should consider live video interviewing to lower costs and better leverage interviewer time. Organizations that need to conduct remote

recruiting (e.g., for remote customer service representatives and mining engineers) should also consider video interviewing to enhance time and cost to hire, as well as candidate experience. The use of a specialized video recruiting solution versus more general-purpose video conference should be driven by the use case and corresponding need for branding, integration to the candidate scheduling or selection workflow, or use of interview data in assessments. Security and privacy requirements should also be considered. Although there is still potential for interview fraud (the person taking the interview could be different from the actual candidate), this potential is much lower compared with phone interviews and can be contained in later stages of the process. Finally, as most video recruiting solutions are stand-alone, their easy and seamless integration to applicant tracking systems, which manage the overall candidate workflow is an important selection criterion.

Business Impact: Video recruiting solutions can improve recruiter and hiring manager productivity, as well as better utilize the resources involved in the interview process. Video recruiting enables a larger number of interviewers to view interviews synchronously or asynchronously. This often results in shorter time to hire and lower cost per hire. In addition, video may also improve the quality of the hire because visual cues may indicate an unexpected positive or negative issue that wouldn't be apparent in a phone interview or application submission. These added screening processes, earlier in the hiring process, enable the recruiter to focus more time on better-fit candidates.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: Cleverconnect; EASYRECRUE; HireVue; Kira Talent; Modern Hire; OutMatch; Sonru; Spark Hire; Talview; Yello

Recommended Reading: "Incorporate Technologies for Considering and Assessing Talent Into Your Hiring Process"

"AI Use Cases in Human Capital Management Technology"

"How to Enhance Employee Experience When Full HCM Technology Replacement Is Not an Option"

Climbing the Slope

Candidate Relationship Management and Recruitment Marketing

Analysis By: Jason Cerrato

Definition: Candidate relationship management (CRM) and recruitment marketing (RM) software includes marketing and intelligence tools for building talent pools, nurturing prospects, employing social marketing and attracting passive candidates. These tools deploy employer messaging, job distribution, sourcing and assessments, and can be used to extend the reach of the talent acquisition (TA) function. These tools improve the candidate experience by streamlining data collection and targeting audience personas.

Position and Adoption Speed Justification: CRM and RM tools increasingly deliver intelligent search, social data mining and machine learning to find "hidden prospects." The wealth of data gathered from all these activities provides powerful insights related to the sourcing process and the strategic deployment of employment branding content. CRM and RM solutions are also increasingly assisting internal employees as vendors begin to aim offerings and features internally for enhanced employee referrals and talent mobility.

The incorporation of artificial intelligence (AI) is adding candidate personalization and customization capabilities, allowing for a level of tailored automation that increases engagement and relevancy. As external talent moves from prospects or a passive audience to applicants and candidates, integrations and embedded solutions in this space become increasingly important, with candidates viewing the process as an end-to-end experience.

The CRM and RM market has been addressing and correcting underutilization by new customers through content curation and enhanced automation. Vendors have improved adoption through features such as AI-enabled screening and intuitive search, virtual assistants, and marketing content management systems.

User Advice: CRM systems are present in the market as stand-alone solutions, however, many TA, TM and HCM suites have taken steps to develop their own capabilities or acquire and integrate CRM solutions into their platform. This has occurred as CRM functionality has increasingly become a "must have" instead of a "nice to have," and the process, automation, and relationship between CRM and ATS activities have become increasingly integrated.

Vendor assessment should include a careful examination of analytics provided to recruiters and managers for in-depth insights into all stages of the recruitment life cycle, as well as effective decision support. As a response to increased competition from applicant tracking system (ATS) and TA suite-related CRM and RM offerings, we have seen a trend for specialist CRM and RM vendors to add additional capability and functionality. This trend is creating a broader suite of engagement- and experience-based offerings. The CRM and RM market is dynamic and evolving rapidly. Many companies use CRM and RM systems to augment traditional ATSs with tools such as chatbots and audience analytics, and others for social job distribution and referral management. Other companies are entirely replacing ATS technologies with new recruiting platforms that have CRM, RM and ATS capabilities. Organizations should assess the capabilities of their current ATS provider against those of specialist CRM, RM and marketing providers' tools to ensure a rich and consistent candidate experience, from initial identification to selection.

TA and application leaders should ensure people are trained, and utilize these tools with a more proactive, audience-focused mindset. Team members dedicated to candidate sourcing and relationship management may be required.

Business Impact: CRM and RM software significantly improves recruiting processes in terms of quality, speed and cost. Jobs are filled faster when leveraging the higher usage rates and quicker response times of social sites, as opposed to using traditional job boards. Data mining and social matching can help uncover hidden talent that traditional candidate-sourcing strategies miss (as shown, for example, by the use of AI to identify "applicant/prospect eagerness"). CRM and RM tools and ATSs have had talent pool and recruiter folder capabilities for some time; the evolution in

this space is coming from platforms that populate those talent pools via AI-driven searches and automation.

These tools are enabling recruiting teams to spend time engaging with highlighted matches within a talent pool, rather than generating the pool itself. Recruitment marketing via social media strengthens an employer's brand and improves visibility, and messaging via social channels is often perceived as more personalized and engaging than it is in traditional email campaigns. With tight labor markets, increased candidate expectations and a new generation of well-researched, tech-savvy job seekers, the talent technology landscape has expanded outward to attract, engage and nurture both passive and active candidates.

The use of the acronym CRM in the recruiting function is beginning to expand to encompass broader modules and outcomes such as talent experience management and talent intelligence. With embedded chatbots, event management support, and talent analytics, many stand-alone CRM applications are evolving into their own versions of a suite of functionality.

Benefit Rating: High

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: Avature; Beamery; Eightfold; Gem; iCIMS; Phenom; SmartRecruiters; Symphony Talent; Talemetry; Yello

Recommended Reading: "The Future of Talent Acquisition Requires Talent Engagement and Systems of Action"

"Incorporate Technologies for Considering and Assessing Talent Into Your Hiring Process"

"Finding and Building Talent in the Digital Talent Ecosystem"

Onboarding

Analysis By: Jason Cerrato

Definition: Onboarding is the process that begins when a job applicant accepts an employment offer and ends when that new employee is productive at work. It has four primary components: forms management to support administrative requirements; task management and analytics to ensure related activities are completed; a new-hire portal to support orientation, training and communications; and social software to improve employee assimilation and encourage engagement.

Position and Adoption Speed Justification: Adoption of onboarding products remains rapid, driven by increases in operational efficiency and a focus on continuing candidate-into-employee experience. Most initial onboarding products were offered by recruiting vendors that positioned employee onboarding as a bridge between an employee's acceptance of a job offer and his or her

first day of work. This bridge would improve HR's operational efficiency by eliminating paperwork and reducing compliance risk. Expectations for onboarding have since grown to include provisioning, socialization, cultural orientation, and learning. Onboarding activities frequently extend well into a new hire's first year to help the person acclimate and become productive. Furthermore, the scope of onboarding now often includes related tasks undertaken by procurement, security, facilities, finance and IT departments, to provide a holistic, enterprise integration approach to onboarding.

More complex process flows call for more robust technologies, such as those used in business process monitoring and provisioning integration. Next-generation onboarding technologies can also be used for a variety of worker transitions, such as transfers and relocations. Most recently with COVID-19 and digital transformation, vendors and end users are adapting onboarding to include total workforce management, and the variations in delivery caused by remote and entirely virtual new hires.

User Advice: Carefully assess your onboarding needs and your organizational and process maturity before committing to a technology or vendor. In this case, "one size does not fit all."

If your organization is new to automated onboarding and has an immediate need to improve HR efficiency and deliver a compelling new-employee experience, deploying traditional single-use onboarding technology can relatively quickly provide tangible improvements to efficiency and the new-hire experience. Organizations should set their sights beyond baseline automation of administrative forms and evaluate onboarding solutions that address learning, cultural orientation and social collaboration. Onboarding is an ideal starting place for applying social software concepts to accelerate activities in the onboarding process and extend networking interactions.

Onboarding is still offered most often by talent management vendors in conjunction with applicant tracking, though there are a limited number of specialist vendors. Some HCM suite vendors provide an onboarding module that can link to many external recruiting applications. Integrated HR service delivery vendors also offer onboarding as part of their service portals, and some system integrators will implement complex solutions using a variety of developer platforms.

As part of digital transformation initiatives, organizations that have established HR-specific onboarding solutions should consider offering a holistic experience that integrates activities beyond HR's borders in order to improve enterprise efficiency and achieve a consistent user experience across departments. They should also consider automating additional worker transitions, such as transfers and terminations, and assess the potential benefits of automating contractor onboarding. Organizations that wish to deploy these types of functional expansion should compare their long-term requirements against their current onboarding technology to determine whether there are gaps.

Business Impact: Onboarding solutions help enterprises ensure that all activities required by the new-hire process are completed efficiently. More importantly, a growing number of organizations are investing in onboarding solutions to help decrease new-hire attrition, increase engagement, and expedite productivity. In this kind of environment, where employee tenure continues to diminish, it is critical that workers become productive as quickly as possible. Onboarding solutions can help make this possible (but a poorly executed onboarding process will degrade the employee experience and could weaken the employer's brand).

Effective onboarding also reduces compliance risk by ensuring complete and correct employee documentation, and by automating access to IT networks and applications. As more organizations apply onboarding technologies and techniques to additional employee transitions, such as transfers, similar efficiencies and benefits are expected.

Increasingly, onboarding software is also being used for additional employee transitions including promotions/transfers, acquisitions, and terminations. In addition to leveraging efficiency and tracking, employee experience has also become a key focus for using onboarding technologies for these organizational moves. The offboarding process, previously focused on compliance, has also become an experience-driven process with organizations seeking to manage process delivery as well as encourage positive feelings for potential alumni to return.

Benefit Rating: Moderate

Market Penetration: More than 50% of target audience

Maturity: Early mainstream

Sample Vendors: Click Boarding; Enboarder; Infor; Neocase Software; Oracle; SAP; ServiceNow; SilkRoad Technology; Ultimate Software; Workday

Recommended Reading: "Overhauling Onboarding: Using Updated Capabilities and Design Thinking to Move Beyond Compliance to Care"

"How to Enhance Employee Experience When Full HCM Technology Replacement Is Not an Option"

"Market Guide for Integrated HR Service Management Solutions"

"What Your HR Service Portal Knows About Your Employees That You Don't"

"To Achieve a Consumer-Grade Employee Experience, HR Must Follow CRM"

Compensation Allocation for Line Managers

Analysis By: Ron Hanscome

Definition: Line managers use compensation allocation tools to recommend salary changes, assess and award employee annual merit increases, and allocate bonuses and equity based on policies and guidelines. These applications are exclusively used by line managers, and do not include other forms of compensation tools with functionalities such as job-grade-based pay scheme development, complex incentive program management, and employee total rewards and benefits management.

Position and Adoption Speed Justification: At present, there are two approaches to providing line managers with tools used to plan compensation for their workers. The first is deploying custom systems that are developed in-house and are typically based around Microsoft Excel or an equivalent technology. The second is using packaged applications from either point solution vendors or as part of an integrated HCM or talent management suite.

Compensation allocation tools for line managers are increasingly being deployed to enable fairer and more-informed compensation decisions and outcomes. Most offer mature functionality, with many incorporating analytics and recommendations based on worker performance combined with progression through the role's designated pay range, and other factors. Gartner anticipates a continued shift from homegrown to packaged applications by midsize and larger enterprises, driven by a need for a closer link between pay and performance. In addition, organizations want to ensure fairer compensation processes, and some must also address mandatory "gender pay gap" reporting. The issue of pay gap equity across the workforce will continue to be a priority in the future. However, for some organizations the need for cost optimization in the pandemic and aftermath may actually drive stronger midterm adoption.

Steady progress along the Hype Cycle is also supported by the continued growth of the specialist point solutions, as well as the increasing adoption of compensation allocation tools within HCM and talent management suites. In fact, 54% of the respondents to the 2019 Cloud HCM Suites for 1,000+ Employee Enterprises Reference Study used their suite's compensation allocation functionality.

User Advice: Application leaders tasked with evaluating compensation allocation functionality for line managers should focus on evaluating the fit of the compensation functionality offered by their incumbent HCM and talent management suite providers versus point solution vendors. The benefits of providing this function via an existing HCM or talent management suite include tighter integration and common user experience; however, point solutions may deliver more advanced functionality. Application leaders tasked with investing in tools to support diversity and inclusion initiatives should also consider compensation planning tools to ensure equitable pay processes.

Building a business case for this type of investment requires application leaders to connect it to potential improvements in employee engagement and fairer, more-transparent compensation adjustment processes. Application leaders should work with vendors and peers in similar organizations to develop case study evidence demonstrating the likely impact of deploying compensation allocation functionality for line managers.

Business Impact: Improving the tools provided for the compensation allocation process can reduce the time taken for managers to complete this task and improve fair pay increases. It can also reduce overall administrative time and potentially decrease allocation errors. Furthermore, these tools should help organizations to apply compensation guidelines equitably across the organization while complying with overall budget guidelines. In doing so they can provide core support for initiatives pertaining to diversity, inclusion and equal pay. Compensation allocation tools enable managers to allocate compensation funds more effectively, with the goal of retaining key personnel by appropriately rewarding high versus low performers. They can also help with cost optimization during times of economic disruption and recovery. Finally, they can help retain employees through improved visibility and transparency around this key component of total rewards.

Benefit Rating: Moderate

Market Penetration: 20% to 50% of target audience

Maturity: Early mainstream

Sample Vendors: beqom; Ceridian; CURO; HRsoft; Oracle; PeopleFluent; SAP SuccessFactors; Ultimate Software; Willis Towers Watson; Workday

Recommended Reading: "Deciphering the Complex Compensation Management Solution Market"

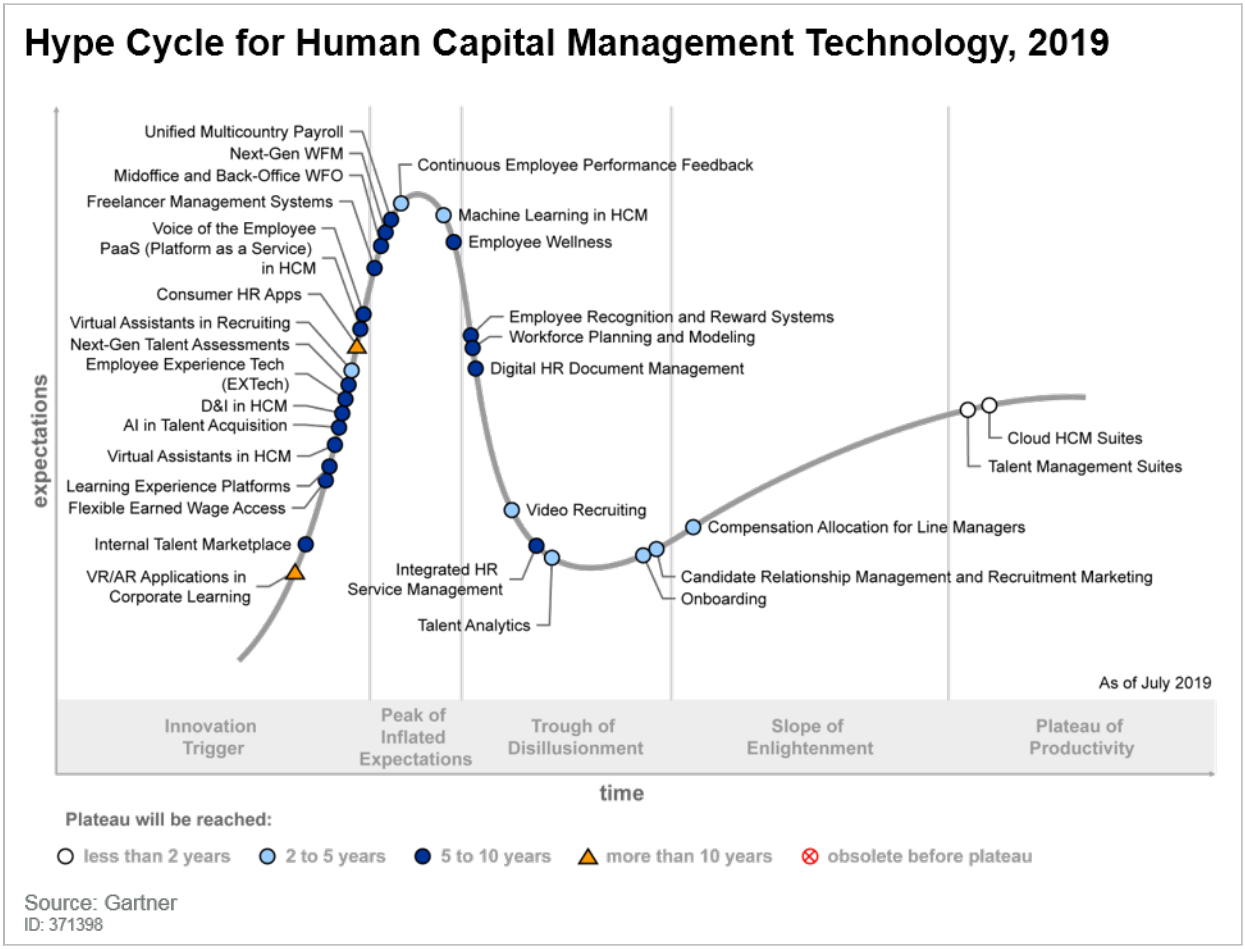
"Critical Capabilities for Cloud HCM Suites for 1,000+ Employee Enterprises"

"How HCM Technologies Can Support Cultures That Perform in Uncertain Times"

"Market Guide for Human Capital Management Suites"

Appendixes

Figure 3. Hype Cycle for Human Capital Management Technology, 2019



Source: Gartner
ID: 371398

Hype Cycle Phases, Benefit Ratings and Maturity Levels

Table 1. Hype Cycle Phases

Phase	Definition
Innovation Trigger	A breakthrough, public demonstration, product launch or other event generates significant press and industry interest.
Peak of Inflated Expectations	During this phase of overenthusiasm and unrealistic projections, a flurry of well-publicized activity by technology leaders results in some successes, but more failures, as the technology is pushed to its limits. The only enterprises making money are conference organizers and magazine publishers.
Trough of Disillusionment	Because the technology does not live up to its overinflated expectations, it rapidly becomes unfashionable. Media interest wanes, except for a few cautionary tales.
Slope of Enlightenment	Focused experimentation and solid hard work by an increasingly diverse range of organizations lead to a true understanding of the technology's applicability, risks and benefits. Commercial off-the-shelf methodologies and tools ease the development process.
Plateau of Productivity	The real-world benefits of the technology are demonstrated and accepted. Tools and methodologies are increasingly stable as they enter their second and third generations. Growing numbers of organizations feel comfortable with the reduced level of risk; the rapid growth phase of adoption begins. Approximately 20% of the technology's target audience has adopted or is adopting the technology as it enters this phase.
Years to Mainstream Adoption	The time required for the technology to reach the Plateau of Productivity.

Source: Gartner (July 2020)

Table 2. Benefit Ratings

Benefit Rating	Definition
Transformational	Enables new ways of doing business across industries that will result in major shifts in industry dynamics
High	Enables new ways of performing horizontal or vertical processes that will result in significantly increased revenue or cost savings for an enterprise
Moderate	Provides incremental improvements to established processes that will result in increased revenue or cost savings for an enterprise
Low	Slightly improves processes (for example, improved user experience) that will be difficult to translate into increased revenue or cost savings

Source: Gartner (July 2020)

Table 3. Maturity Levels

Maturity Level	Status	Products/Vendors
Embryonic	■ In labs	■ None
Emerging	■ Commercialization by vendors ■ Pilots and deployments by industry leaders	■ First generation ■ High price ■ Much customization
Adolescent	■ Maturing technology capabilities and process understanding ■ Uptake beyond early adopters	■ Second generation ■ Less customization
Early mainstream	■ Proven technology ■ Vendors, technology and adoption rapidly evolving	■ Third generation ■ More out-of-the-box methodologies
Mature mainstream	■ Robust technology ■ Not much evolution in vendors or technology	■ Several dominant vendors
Legacy	■ Not appropriate for new developments ■ Cost of migration constrains replacement	■ Maintenance revenue focus
Obsolete	■ Rarely used	■ Used/resale market only

Source: Gartner (July 2020)

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

Understanding Gartner's Hype Cycles

The Future of Cloud HCM Suites

Toolkit: HCM Technology Role-Based Discovery, Inventory and Prioritization

Predicts 2020: HCM Technology Transformation

Market Snapshot — Human Capital Management, Worldwide, 2020

How HCM Technologies Can Support Cultures That Perform in Uncertain Times

The Future of Talent Acquisition Requires Talent Engagement and Systems of Action

Get Ready for the Convergence of Employee Performance and Engagement

AI Use Cases in Human Capital Management Technology

HR Trends for a Post-COVID-19 Future of Work

GARTNER HEADQUARTERS

Corporate Headquarters
56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters
AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit http://www.gartner.com/technology/about.jsp