



The World of HR Is Changing Rapidly: I-O Psychology Can Help

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Alexis Fink has spent more than 2 decades leading talent analytics, workforce strategy, talent management, and large-scale organizational change teams at leading global organizations, including Meta (Facebook), Microsoft, and Intel. She has done extensive work in organizational transformation, organizational culture, leadership assessment, and the application of advanced analytical methods to human capital problems. She is an author of a comprehensive book on people analytics, *Investing in People: Financial Impact of Human Resource Initiatives*; coedited the recent book on employee surveys, *Employee Surveys and Sensing: Driving Organizational Culture and Performance*; and has contributed numerous other book chapters and articles through her career. Alexis is the president of the Society for Industrial and Organization Psychology (SIOP), as well as a SIOP Fellow; was recipient of SIOP’s Distinguished Service Award in 2019; is an Affiliated Research Scientist USC’s Center for Effective Organizations; and was chair of the IT Survey Group, an industry consortium dedicated to employee surveys. Alexis earned her PhD in Industrial-Organizational Psychology at Old Dominion University.



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Cole Napper, PhD, is the global head of People Analytics at FedEx, leading the global people analytics team at this *Fortune* 50 organization. He has been a member of SIOP for over 15 years and has served on the Professional Practice committee in the past. With a strategic focus, Cole provides invaluable insights to both large, multinational corporations spanning various industries (Texas Instruments, Toyota, PepsiCo) and venture-capital backed startups (Orgnostic, Motive, Booster). His expertise extends to scaling multiple HR COE functions, emphasizing the transformative power of people analytics and I-O psychology in contributing to organizational growth and efficiency. Cole is the owner, cohost, and writer of *Directionally Correct*, the #1 People Analytics Podcast and Substack Newsletter. He is an active member of DAIOP and has also taken on a leadership role in organizing People Analytics Meetups across major cities (Dallas, Houston, Denver, Chicago, etc.), fostering a sense of community and engagement in the field. Cole holds a PhD and MA in Industrial-Organizational Psychology from Louisiana Tech University.

Abstract

The workplace is undergoing dynamic changes, significantly driven by advancements in artificial intelligence, emerging technologies, and evolving cultural landscapes. These transformations are reshaping how organizations operate and how employees interact within their professional environments. In response to these trends, human resources teams have been growing increasingly sophisticated and influential since the turn of the 21st century, and this trend accelerated during the pandemic. More and more organizations are turning to deep expertise and solid data work to improve the functioning of their organizations gain competitive advantage as an employer of choice and to increase the effectiveness and efficiency of their organizations.

As organizations seek to become more data driven and better aligned to their businesses, we increasingly see professionals from analytical disciplines like finance, data science, and engineering bring their expertise into the function. In the highest performing organizations, we are seeing a surge in utilization of professionals with a background in industrial-organizational (I-O) psychology.

For over a century, I-O psychology, also sometimes called work psychology or organizational psychology, has been deeply exploring work and working. I-O uses qualitative and quantitative methods to identify features and strategies that improve organizational and worker outcomes and support thriving organizations. I-O practitioners are experts in using social science methods and advanced statistics paired with content expertise across the full spectrum of talent management and human resources activities.

Many I-O practitioners have deep capability in advanced analytical techniques and can help organizations understand nuanced patterns and forecast workforce outcomes in a way that helps organizations plan and position themselves for efficient operations. Others are deep experts in core human resources capabilities around key functions such as selection and performance appraisal, including ensuring that assessments are reliable, valid, and fair. Still, others have developed research-backed expertise in areas like organization design, leadership, team effectiveness, and organizational change. Typically, someone with graduate preparation in I-O psychology will have capability in all of these areas, which is essential for the modern HR organization.

One of the things that sets the discipline of I-O psychology apart from most related disciplines in business, engineering, or social science is the dual focus on both organizations (work) and workers. That is, I-O psychology practitioners are skilled at balancing the considerations of organizations' effectiveness and efficiency with individuals' well-being and the long-term sustainability of work. This might be most easily seen in selection work, where a skilled I-O psychology practitioner can help ensure that selection tools and methods are effective at identifying and selecting the most critical skills for effective job performance while simultaneously eliminating bias that harms candidates and robs organizations of effective workers.

I-O psychology brings many of the disciplines and features of psychology writ large to an organizational context. Deep expertise in areas such as human behavior, measurement, assessment, longitudinal methods, prediction, systems-level analysis, and ethics are relevant in an organizational setting. Practitioners may also use their expertise in psychology to support employee well-being, work-life balance or integration, learning and development, and other considerations that support human thriving. However, it is important to remember that practitioners with backgrounds in I-O psychology are not licensed mental health providers and can not appropriately provide individual therapeutic services.

Core Skills of the Modern I-O Practitioner

As the field of I-O psychology evolves, the skills required of its practitioners have expanded to meet contemporary organizational challenges. This section delves into the core skills that modern I-O psychology practitioners, whether external experts or in-house practitioners, use to effectively navigate the complexities of today’s workplace environments. Essentially, any time an organization needs to make HR or people-focused decisions, I-O psychology can help through research, design, implementation, and evaluation. A few examples of content areas where expertise in I-O psychology is relevant include the following.

Advanced Analytical Techniques

Applications of artificial intelligence, forecasting models, and optimization techniques are quickly becoming key differentiators for leading human resources teams, lending competitive advantage to the organizations they serve. Although many teams will still rely on data scientists for a core part of their analytical strategy, I-O practitioners will often have the essential skills necessary and will be important colleagues as part of interdisciplinary teams, with the ability to provide the necessary expertise to ensure that analyses are relevant, useful, and appropriate.

In particular, I-O practitioners are generally well versed in employment law and privacy considerations for employee data in a way that other technical professionals frequently are not. For example, ensuring familiarity with regulation regarding adverse impact is important to ensuring that selection procedures are fair, and awareness of relevant employee data privacy law is essential in ensuring that sensitive data are appropriately protected. This can help internally in ensuring that an organization can maintain employee trust and ensure risk mitigation in the forms of avoiding litigation or costly rework.

Advanced techniques are only beneficial to organizations if they can be interpreted and applied to improve an organization’s decisions or actions. I-O practitioners are typically skillful at translating technical findings into HR policies and strategies, and at displaying findings in a compelling and informative way, using effective data visualization and relatable storytelling.

Selection and Performance Management

Two of the most essential functions of a human resources department are selection and performance management. These are the areas with the longest and deepest roots in industrial and organizational psychology. I-O psychology practitioners, either internal or external consultants, are uniquely qualified to identify the essential functions of a job; develop accurate, effective, and fair assessments; and validate those assessments for use. Additionally, a skilled I-O practitioner can help organizations effectively choose among available approaches to optimize for the most important outcomes. As technology advances, I-O psychology practitioners are helping organizations build efficient, effective, timely, and user-friendly systems to assess skills and capabilities for selection, and to assess performance in robust and timely ways.

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Bringing I-O psychology expertise to opportunities around selection and performance management is essential not only to ensuring that organizations can run effectively and efficiently, but also to ensuring that those organizations’ practices are fair, equitable, and based on appropriate, relevant job factors. Not all variables that predict job performance or retention are appropriate, or even legal, to use. Practitioners trained in I-O psychology are specifically skilled in crafting

selection and performance strategies and assessments that support the organization’s needs and appropriately protect employees and candidates at the same time.

Similarly, many organizations start their people analytics journey by forecasting attrition. Here again, expertise in I-O psychology can be helpful, identifying features that contribute to attrition and that are appropriate for consideration; that is, those items that organizations can control (such as pay and working conditions), influence (such as what knowledge, skills and abilities are prioritized during selection), and which may be statistically related to attrition but are inappropriate for inclusion in decision making (such as protected characteristics).

Organizational Effectiveness

I-O psychology practitioners have deep content and methods expertise in helping leaders design, manage, and improve systems to support effective, efficient organizations. Manager effectiveness, team effectiveness, employee listening, job architecture, employee experience, and even organizational wellness initiatives can be constructed to serve as the framework by which organizational health is monitored. I-O practitioners work closely with organizational leaders to develop frameworks that optimize workplace dynamics and drive performance in ways that are relevant to the unique circumstances of each organization. In short, I-O practitioners have skills to help organizational leaders understand what works well and what does not so they can make better organizational decisions.

Optimizing Talent Management

I-O psychologists contribute significantly to optimizing talent management by applying their expertise to enhance and even predict employee performance and potential. Their understanding of human behavior and organizational dynamics enables them to refine talent management programs that accelerate the right talent, making organizations more resilient and antifragile. This integration of psychology into data-driven practices helps organizations identify the best candidates for positions and foresee future leaders. As a result, companies are better equipped to make informed decisions about hiring, promotions, and development, aligning talent strategy with business objectives.

Employee Engagement, Well-Being, and Culture

The experience of people at work can have a significant impact on their performance, productivity, and retention, as well as having spillover effects on their mental and physical health, and the well-being of their families. Over the decades, I-O psychology as a field has learned a great deal about the essential components of an effective, engaging, healthy working environment. Although the popular press may focus on items like ping-pong tables as emblematic of culture, an I-O psychology practitioner can help an organization sort through important, underlying factors like role clarity, psychological safety, effective goals and rewards, optimized job and organization design, and healthy manager behaviors.

Organization Development, Learning, and Change Management

Building on the job relatedness that is the foundation of all I-O methods, organization development, learning, and change management are extensions of I-O psychology and critical components of modern business strategies that ensure companies remain adaptable and resilient in the face of rapid market changes. I-O psychology contributes to these disciplines’ focuses on aligning organizational structures, processes, and cultures with strategic goals, fostering environments that encourage con-

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tinuous improvement and innovation. By implementing effective learning and development programs and facilitating change management initiatives, organizations can better manage transitions, improve employee capabilities, and ultimately enhance organizational performance.

Consulting

Consulting within the realm of I-O psychology provides vital expertise to organizations seeking to optimize their workforce and workplace practices. I-O psychology practitioners who work as consultants apply their deep understanding of systems thinking and organizational dynamics to diagnose problems, design effective interventions, and evaluate outcomes. Their guidance helps organizations navigate complex challenges such as restructuring, HR strategy, and enhancing employee productivity, contributing significantly to the strategic goals and long-term success of their clients. Both internal and external I-O consultants can serve as strategic partners and expert advisors to business leaders as they navigate critical business challenges. These I-O-trained experts are often key partners to top HR executives as well.

Beyond HR

Many of the core skills honed through training in I-O psychology have applicability beyond HR. Notably, the social science research and analytical methods are particularly relevant in product functions for user experience research (UXR) and in sales and marketing functions as part of marketing research.

The Intersection of I-O Psychology and Technology

In today's rapidly evolving workplace, the integration of technology and humancentric practices is happening right before our eyes. I-O psychology practitioners can play a pivotal role in the introduction of and ensuring the efficacy of HR technology. A few examples include the following.

People Analytics

I-O psychology brings a critical perspective to enhancing people analytics within HR departments. By applying psychological principles to the design and interpretation of data systems, I-O practitioners ensure that the data collected are not only accurate but also meaningful. This includes refining how data are gathered and ensuring they are relevant to actual workplace outcomes and employee behaviors. As a result, HR professionals and organization leaders can make better informed decisions based on analytics that truly reflect employee satisfaction, productivity, and potential.

People analytics teams in many organizations are staffed with professionals with a variety of backgrounds, including traditional HR professionals as well as engineers, finance professionals, information technology specialists, and statisticians or data scientists serving alongside I-O psychology practitioners. In effect, most of the work done by most people analytics teams is rooted solidly in the methods and content of I-O psychology. I-O psychology's emphasis on ethical practice, including expertise in complying with employment law and focus on evaluating the utility of various practices or programs, make I-O psychology training especially valuable to people analytics teams.

Recruitment and Selection

The integration of AI and other advanced technologies in recruitment and selection processes is becoming transformative, and this change presents both new opportunities for effective and fair assessments and new challenges in ensuring fairness and effectiveness. I-O psychologists play a pivotal role in addressing these challenges by applying their expertise to develop and evaluate advanced tools for recruiting, sourcing, and selecting talent. Their knowledge helps in calibrating algorithms to seek true talent and eliminate biases that might affect decisions about hiring, thus promoting a more comprehensive assessment of all candidates and uncovering those who may have gained critical skills through less obvious paths. This leads to not only more ethical recruitment practices but also more diverse and competent workforces that can drive organizational success.

Job Analysis and Design

I-O experts are starting to leverage advanced technology to revolutionize job analysis and role design, enhancing both human and technological efficiency. By using AI and related tools to augment the I-O psychology skillset, they can conduct more precise job analyses at scale, which identify and articulate the specific responsibilities, skills, and behaviors required for each role, as well as detecting changes in how work is done, enabling more timely updates to related systems like selection (or hiring). This precision in job analysis also allows for the creation of roles that are tailored to maximize productivity and even enable the transition to a more skill-based future of talent, including better supporting internal mobility within organizations. This approach not only optimizes individual job functions but also ensures that these roles are aligned with the organization's broader strategic goals.

HR Technology

The HR technology ecosystem is expanding rapidly, with solutions and vendors to cover nearly every aspect of the HR function. As organizations increasingly adopt new HR technologies, I-O psychology expertise is essential in evaluating software functionality, assessing legal and ethical use, and ensuring effective adoption. There is a crucial need to redesign work processes to accommodate new tools without sacrificing efficiency or employee well-being, and I-O psychologists can ensure this transition occurs. Technological adaptations should be user friendly and genuinely enhance job performance. I-O practitioners not only help maintain workforce engagement and productivity during periods of change but may even be the designers and implementers of this HR software.

Scaled HR Metrics, Dashboards and Practice Recommendations

Many HR technology interventions are aimed at providing leaders, managers, and HR professionals with scaled, consistent, reliable access to critical information about the organizations they support. The emphasis on valid, reliable, and relevant measurement of people practices at work makes I-O psychology preparation helpful in devising and deploying HR measurement strategies. Additionally, the ability to tie key indicators to practice recommendations, especially practice recommendations based on a century of solid scientific exploration in organizations, makes an I-O psychology practitioner a vitally important member of teams building people measures.

I-O Psychology Can Assist While Implementing AI in Your HR Strategy

Integrating generative AI applications into HR strategies presents a powerful opportunity to enhance organizational efficiency and employee engagement, and I-O practitioners are at the forefront of this adoption. At its nexus, I-O psychology and AI have the potential to revolutionize selection, performance management, change management, and other HR practices, offering practical steps and expert guidance for effective integration.

Advances in assessment will go beyond increasing speed; the opportunity to immersively simulate the job using augmented or virtual reality is already being explored as a means of assessing the ability to effectively perform complex tasks. Although computer adaptive tests have been around for decades, new technologies exponentially increase the opportunity to precisely identify skills as well as skill gaps.

Technology advances, like generative AI, also play a role in selection. However, there is a risk that these advanced tools will be used by candidates to misrepresent their skill levels, especially in virtual settings. Here again, I-O psychology practitioners are frequently able to help, by designing systems to detect cheating and by designing or refreshing assessments that are less vulnerable to inappropriate use of gen AI in candidate testing.

Integrating I-O psychology with AI in performance management systems offers transformative benefits to HR strategies. I-O practitioners are positioned to develop AI-driven performance metrics that not only measure output accurately but also foster an environment of motivation and fairness. These metrics, when designed well, provide real-time and continuous feedback that help employees and managers alike understand performance strengths and areas for improvement.

Streamlining employee feedback and evaluations can save time while ensuring performance is aligned with organizational goals and employee well-being. One of the most common complaints about performance management in many organizations is that it takes too much time. The ability of AI models to swiftly summarize content and compare that content to consistent standards has the potential to both reduce bias and reduce the time demand of performance management. I-O practitioners are also well positioned to support organizations in considering the specifics of their situations and to ensure that AI-based enhancements to performance systems are designed and deployed in compliance with regulations on the use of automated systems and outcome fairness.

Change management is another critical area where the combination of AI tools and I-O psychology can significantly enhance your HR strategy. By integrating AI with I-O strategies, organizations can better proactively assess the impacts of proposed changes, model potential scenarios, and create data-driven strategies that minimize disruption. I-O practitioners use their understanding of human dynamics and organizational structure using tools like organizational network analysis to implement changes in ways to maximize effectiveness while respecting employee boundaries and understanding company culture.

Consulting with I-O psychology experts who specialize in HR strategy and analytics is vital for implementing a sophisticated HR strategy. For HR professionals looking to integrate AI into their HR practices, starting with practical steps is essential. Begin by identifying specific HR tasks that can benefit from enhanced data analytics, such as talent acquisition, employee engagement, and turnover rates. Partnering with I-O practitioners who have experience in AI can help tailor AI applications to address these areas effectively and appropriately.

I-O psychology expertise can also assist with the training and education of the use of AI to formulate your HR strategy. HR professionals should seek opportunities for training from I-Os on both AI applications and the principles of I-O psychology to build a comprehensive understanding of how these fields can intersect. Many I-O practitioners provide or recommend workshops, certifications, and courses to equip HR teams with the necessary skills to leverage AI tools alongside psychological insights. I-O practitioners also have depth of expertise in job analysis, which is a critical first step to building effective advanced simulations for training purposes, as AI becomes more common.

Further, professionals with expertise in I-O psychology can help build effective evaluation approaches for the efficacy of training, and specifically training in support of an AI strategy, whether than be developing AI solutions or using AI tools as part of work. Training is notoriously hard to evaluate effectively, and the expertise in experimental design and measurement that an I-O practitioner can bring can help organizations hone their investments to focus on those that deliver the greatest lasting impact.

The Future Directions for HR and I-O Psychology

As we look to the future, the fields of HR and I-O psychology are poised to become even more intertwined with technological advancements, particularly in generative AI and machine learning. These technologies will likely drive the development of more sophisticated HR technology tools, employee engagement applications, and personalized employee development pathways. The challenge for I-O psychology experts and HR professionals alike will be to ensure these advancements enhance the workplace without compromising who we are as humans. I-O practitioners will continue to be here to help, and you know where to find us.

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Further Reading From SIOP

If you are seeking additional resources from SIOP to assist in navigating the future of HR, the SIOP Professional Practice Book Series is a great place to start. Here are some example texts to choose from:

- *Talent Assessment: Embracing Innovation and Mitigating Risk in the Digital Age* - Edited by Tracy Kantrowitz, Douglas H. Reynolds, and John Scott
- *Performance Management Transformation: Lessons Learned and Next Steps* - Edited by Elaine Pulakos and Mariangela Battista
- *Strategic Workforce Planning: Best Practices and Emerging Directions* - Edited by Marc B. Sokol and Beverly A. Tarulli
- *Employee Surveys and Sensing: Challenges and Opportunities* - Edited by William H. Macey and Alexis A. Fink
- *The Age of Agility: Building Learning Agile Leaders and Organizations* - Edited by Veronica Schmidt Harvey, PhD and Kenneth P. De Meuse, PhD
- *Becoming a Talent Magnet: Lessons from the Field on Attracting and Recruiting Great People* - Edited by Mark A. Morris