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Research Brief

Beyond the people analytics label:
A knowledge review of AI and related digital
technologies across Swedish organizations

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EXECUTIVE SUMMARY

Artificial intelligence (AI), the Internet of Things (IoT) and People Analytics (PA), also referred to as HR Analytics (HRA), are often presented as transforming the way organizations use data to support work-related decisions, organizational performance and digital transformation. They are expected to be associated with improvements in recruitment, workforce planning, employee engagement, training, retention, productivity and decision-making. However, the Swedish empirical evidence presents a more complex, fragmented and uneven picture. Rather than revealing a coherent field of people analytics research, this knowledge review shows that relevant evidence is distributed across multiple organizational contexts, occupations and disciplinary traditions.

This research brief summarizes a knowledge review of Swedish empirical studies (2015-2025) examining AI, IoT and related digital technologies in organizational contexts relevant to work, employment and workforce-related decision-making. The review originally aimed to examine AI-powered and IoT-enabled people analytics or HR analytics in four key areas of workforce management: recruitment, training, employee engagement and employee retention. The reviewed evidence, however, shows that studies explicitly framed as people analytics or HR analytics research remain scarce in Sweden. Instead, relevant studies are distributed across adjacent research areas, including algorithmic hiring, automated decision-making, digital HR technologies, cybervetting (i.e., employers' informal screening of job applicants using online and social media information), IoT-assisted employee well-being, ICT-enabled work, public-sector digitalization and AI governance. These adjacent research areas, with full citations, are introduced in the Introduction below.



Recruitment emerged as the most developed application area, that is, AI-enabled recruitment platforms and algorithmic hiring tools are where AI most clearly shapes work-related decision-making. By contrast, relatively little Swedish empirical research published between 2015-2025 examines AI-, IoT- or people-analytics-enabled approaches in post-hire domains such as employee engagement, retention, training and workforce development.

The review also reveals a clear imbalance between AI and IoT in the Swedish evidence base. AI is far more visible than IoT in workforce-related decision-making, while IoT research remains scattered mainly across engineering, occupational health and manufacturing fields rather than people analytics. This does not mean IoT is unimportant in Swedish organizations, only that its role has so far been studied through different disciplinary lenses (see the Key Findings below for a fuller explanation).

Governance and ethical challenges, including algorithmic bias, privacy, limited transparency and unclear accountability, emerged as recurring themes across the reviewed studies regardless of application domain. Addressing them requires more than technological solutions, and it also requires robust governance arrangements, high-quality data, and managerial and employee competence.

Overall, people analytics has not yet become an established or mature field of research in Sweden. Three conclusions follow. First, digital HRM adoption in Sweden has so far been piecemeal and concentrated on recruitment and administrative efficiency, even though the larger potential benefit may lie in using AI and automation to transform HR processes more broadly. Second, comparatively little attention has been paid, in people analytics and digital HRM more generally, to strengthening employee experience, engagement and well-being, which risks limiting employee engagement and organizational commitment over time. Third, realizing these technologies' benefits responsibly will require sustained, long-term investment in



organizational learning and competence development, for example, drawing on tailoring-based approaches to capability building documented in adjacent HR domains such as leadership development (Schmidt, Kjellström & Avby, 2026), rather than one-off technology purchases. Without such investment, Swedish organizations risk a growing capacity deficit, i.e., a widening gap between what these technologies could deliver and what organizations are actually able to realize.



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INTRODUCTION

People analytics, also referred to as HR analytics, has increasingly been promoted as an evidence-based approach to supporting organizational and workforce-related decision-making (Marler & Boudreau, 2017). By collecting and analyzing data about employees, job applicants, work processes and organizational outcomes, HR functions are expected to support more informed decisions about recruitment, training, employee engagement, retention, performance and productivity (Angrave et al., 2016; Marler & Boudreau, 2017). In recent years, advances in artificial intelligence (AI) and the Internet of Things (IoT) have further expanded these expectations. AI enables pattern recognition, prediction, automation and decision support, while IoT generates real-time workforce-related data through sensors, wearables and connected devices (Strohmeier, 2020; Tambe, Cappelli & Yakubovich, 2019). These digital technologies are widely

expected to support more intelligent, data-driven and responsive approaches to workforce management.

Meanwhile, the growing use of data-driven digital technologies in HR practices and related workforces raises important governance and organizational questions. These include what types of workforce data are collected, how they are used to support decision-making, and whether organizations can identify and mitigate algorithmic bias (Barocas & Selbst, 2016; Tambe, Cappelli & Yakubovich, 2019). Digital systems may also affect human judgement, professional discretion, employee trust and the work environment (Håkansta, 2022; Palm, Asp & Håkansta, 2025). These issues are particularly important in the Swedish context, where workplace relations, public-sector accountability, anti-discrimination legislation, data protection requirements and work environment responsibilities shape



how new technologies are introduced, implemented and evaluated (Blom Lussi et al., 2024; Ranerup & Svensson, 2024).

Automated decision-making (ADM) refers to organizational decisions that are partly or fully supported by algorithms or AI systems and is therefore one of the principal application areas of AI in the reviewed studies (Blom Lussi et al., 2024; Larsson, White & Bogusz, 2024; Ranerup & Svensson, 2024). Robotic process automation (RPA) represents another form of digitalization by automating routine administrative tasks such as payroll administration, onboarding and personnel records. Interestingly, none of the reviewed Swedish empirical studies explicitly examined RPA in HR practices. Instead, the reviewed literature mainly addressed AI-supported recruitment, algorithmic decision-making, digital governance and organizational digitalization.

The Swedish context also presents an interesting paradox. Sweden is widely

recognized as one of the world's most digitally advanced economies, and AI adoption among organizations has increased rapidly (Engberg et al., 2025). However, evidence from the recent CGHRM/Cranet report indicates that the adoption of HR analytics, algorithmic HR and advanced digital HRM remains comparatively limited in Swedish organizations (Tengblad & Nord, 2024). Most organizations continue to use digital technologies primarily for administrative support rather than for advanced workforce analytics, suggesting that organizational capability and digital maturity within HR functions have developed more slowly than digitalization in the wider economy. This broader context provides an important background for interpreting the findings of the present knowledge review. Addressing this paradox is unlikely to be simply a matter of adopting more technology. Research on HR practitioners' work in the adjacent field of leadership development suggests that building organizational capability effectively depends on deliberately tailoring



development efforts to the organizational context, to individual needs, and to the interaction between the two, rather than treating capability building as a generic, one-size-fits-all undertaking (Schmidt, Kjellström & Avby, 2026). A comparable, tailored approach to building digital and analytical capability, one that is adapted to organizational size, sector and existing digital maturity, and paired with sustained investment in governance, competence and employee involvement, is likely to be central to closing the gap between Sweden's general digital advancement and its comparatively limited progress in HR analytics and digital HRM. This review returns to this point when discussing its practical implications. The aim of this knowledge review was to synthesize Swedish empirical evidence on how AI, IoT and related digital technologies are being applied across organizational contexts relevant to work- and workforce-related decision-making. Rather than limiting the review to studies explicitly labelled as people analytics or HR analytics, the review adopted a broader

perspective to identify how related digital technologies are shaping organizational practices across HR, public administration, education, manufacturing and other work-related settings. A further aim was to identify common organizational, ethical and governance challenges as well as important gaps in the current evidence base.

The review identified 12 studies for the main synthesis (see Figure 1). Only one study explicitly examines people analytics in the Swedish public sector (Espegren, 2025). Most studies investigate work-related practices under different conceptual labels, e.g., algorithmic hiring and AI-supported recruitment, automated decision-making, digital recruitment platforms, cybervetting, ICT implementation, IoT-assisted employee well-being, manufacturing digital transformation and public-sector AI governance (Blom Lussi et al., 2024; Bursell & Roumbanis, 2024; Hedenus, Backman & Håkansson, 2021; Peretz-Andersson et al., 2024).



These findings suggest that AI- and IoT-related people analytics has not yet emerged as a clearly defined field of research in Sweden. Instead, relevant evidence is scattered across different disciplines, sectors and application areas. A knowledge review, therefore, is particularly valuable in this context because it allows evidence dispersed across disciplines, sectors

and conceptual traditions to be synthesized around a common research problem. Rather than asking whether people analytics exists a clearly defined field, this review examines how related digital technologies are reshaping work, organizational decision-making and governance across different organizational contexts.

12 included studies	
Only one directly focuses on people analytics/HR analytics; more evidence appears under adjacent labels	
Work-related domains	Evidence pattern
Recruitment and selection AI talent acquisition, platforms, cybervetting	AI-enabled work-related decision-making (7 studies) More visible and decision-oriented: recruitment, screening, ranking, automated decision-making. • Blom Lussi et al. (2024) • Bursell & Roumbanis (2024) • Espegren (2025) • Hedenus, Backman & Håkansson (2024) • Larsson, White & Bogusz (2024) • Paramita, Okwir & Nuur (2024) • Ranerup & Svensson (2024)
Training and competence development AI bias, capability building, new digital roles	
Engagement, well-being and work environment IoT implementation, IoT-assisted well-being, practice effects	
Retention and workforce development Weak direct evidence in the reviewed studies	
Governance challenges Ethics, privacy, transparency, accountability	
Organizational capability Data quality, competence, implementation support, trust	

Figure 1. Evidence map of AI- and IoT-related digital technologies in organizational contexts relevant to work in Sweden

Source: Author's own elaboration based on knowledge review findings.



KEY FINDINGS

The reviewed evidence reveals five overarching findings that together characterize the current state of AI- and IoT-related digitalization relevant to work, organizations and people analytics in Sweden. Rather than describing a coherent and mature field of people analytics research, the findings point to an emerging but fragmented body of evidence

dispersed across different organisational contexts, disciplines and conceptual traditions. These findings highlight not only where AI and related digital technologies are currently being applied, but also the organizational capabilities, governance arrangements and research gaps that need to be addressed to support their responsible development and implementation.

01 People analytics has not reached an advance state

The first and perhaps most important finding is that the terms people analytics and/or HR analytics are not yet widely used in the Swedish literature. Only one study in the review explicitly examines HR analytics adoption in public-sector organizations (Espegren, 2025). The absence of the label does not necessarily mean the absence of the underlying practices. Organizations may use data, digital platforms, algorithms or other technologies to support workforce-related

decisions without explicitly describing these practices as people analytics. For example, recruitment platforms may rank candidates, employers may assess job applicants' online networks, public authorities may use automated decision-making, and schools may apply IoT-based technologies to monitor well-being (Blom Lussi et al., 2024; Brodén et al., 2025; Hedenus, Backman & Håkansson, 2021; Larsson, White & Bogusz, 2024). Although these practices are described using different



concepts, they all involve the collection, use or analysis of workforce-related data to support organizational decision-making.

Another practical implication is that organizations and HR professionals should not view people analytics solely as a formal HR dashboard or a dedicated analytics function. Instead, people analytics may also be embedded in recruitment platforms, automated screening systems, workforce planning tools, digital case management systems, well-being technologies and routine managerial reporting (Espegren, 2025; Larsson, White & Bogusz, 2024; Ranerup & Svensson, 2024). The challenge is that organizations may not recognize these technologies as part of

broader people analytics practices. As a result, they may underestimate the need for appropriate governance, transparency and ethical oversight.

The Swedish evidence therefore points to a clear terminology gap. Similar workforce management practices are described using different concepts across disciplines and organizational settings. This makes it more difficult to identify, compare and govern AI- and IoT-enabled people analytics as a coherent area of practice. For organizations, this highlights the importance of looking beyond terminology and recognizing people analytics wherever data are collected and used to support workforce-related decisions.

02 Recruitment is the most developed application area identified in the reviewed studies

Recruitment emerged as the most developed application area in the reviewed studies. Several studies examine how AI-enabled recruitment technologies, algorithmic hiring, digital recruitment platforms and social networking sites are used to identify, screen, rank and evaluate job applicants. The reviewed studies cover a range of recruitment practices, including algorithmic hiring in a large

Swedish food retail company, AI-supported talent acquisition, employers' use of AI and automated decision-making in recruitment, and recruiters' assessment of job applicants' online networks (Bursell & Roumbanis, 2024; Hedenus, Backman & Håkansson, 2021; Larsson, White & Bogusz, 2024; Paramita, Okwir & Nuur, 2024).



Several characteristics of recruitment may help explain why this area is the most visible in the reviewed studies. Recruitment is a relatively structured and recurrent organizational process that generates large amounts of workforce-related data through applications, CVs, interviews, assessment tests, digital platform profiles and hiring outcomes.

Organizations also face increasing pressure to make recruitment faster, more efficient, consistent and evidence-informed. Consequently, AI-enabled recruitment technologies are increasingly promoted as tools that can reduce administrative work, improve scalability, support decision-making and, in some cases, reduce unconscious bias (Paramita, Okwir & Nuur, 2024; Tambe, Cappelli & Yakubovich, 2019).

The findings, however, suggest that digital recruitment is not automatically fairer or more transparent. Algorithmic hiring may reproduce or amplify existing bias, and diversity outcomes also depend on how managers interpret, use or override algorithmic recommendations (Bursell & Roumbanis, 2024). Recruiters may also rely on third-party digital platforms without fully understanding how AI or automated decision-making functions are embedded in those platforms (Larsson, White & Bogusz, 2024). Moreover, cybervetting may introduce informal and opaque criteria based on job applicants' perceived trustworthiness, digital competence and social capital as reflected in their online

networks (Hedenus, Backman & Håkansson, 2021).

These findings highlight an important challenge for HR. Rather than replacing human judgement, AI-enabled recruitment technologies often reshape how recruitment decisions are made. Managers, recruiters and technology providers all influence the final decision-making process. Although digital tools may rank or recommend job applicants, human decision-makers ultimately determine whether those recommendations are accepted, modified or overridden (Bursell & Roumbanis, 2024; Larsson, White & Bogusz, 2024). Even in later stages of recruitment, relational judgement and subjective assessments remain important. As a result, recruitment continues to be a hybrid process in which algorithmic outputs and human judgement jointly shape hiring decisions.

For organizations, the findings suggest that AI-supported recruitment should be treated as a governed organizational process rather than simply a technological or procurement decision. HR functions should consider what data are collected, how job applicants are ranked, whether outcomes are monitored, how bias is assessed, and who is accountable if discriminatory outcomes occur. Equally important is to ensure that managers understand how to interpret and use algorithmic recommendations responsibly, rather than focusing solely on selecting the technology itself.



The dominance of recruitment in the reviewed studies also highlights an important gap. Workforce management includes much more than hiring. Training, employee engagement, retention, performance management and employee well-being are all central HR

functions, yet these areas are much less represented in the reviewed Swedish studies. Future research and organizational practice should pay greater attention to post-hire domains, where digital technologies shape ongoing employment relationships rather than one-off hiring decisions.

03 AI is more visible than IoT in workforce-related decision-making

The reviewed studies show an imbalance between AI- and IoT-related applications in work- and workforce-related decision making, and also limited evidence on RPA (robotic process automation) in HR. AI-related studies primarily examine the use of AI to support decisions about job applicants, employees and public-service users. These studies cover applications such as algorithmic hiring, AI -supported talent acquisition, automated decision-making in public authorities, and AI governance in welfare administration (Blom Lussi et al., 2024; Bursell & Roumbanis, 2024; Paramita, Okwir & Nuur, 2024;

Ranerup & Svensson, 2024). Compared with AI, IoT-related evidence is more limited and less directly connected to people analytics and workforce-related decision-making. The reviewed studies primarily examine the use of IoT and related digital technologies for data collection, well-being, workplace environments and digital infrastructure rather than for supporting HR decisions. For example, one study explores IoT-assisted well-being in an elementary school, where sensors, wearables and smart devices are discussed as tools for collecting data to support student and teacher well-being and school improvement



rather than HR decision-making (Brodén et al., 2025). Similarly, IoT is discussed in manufacturing SMEs primarily as part of broader digital transformation rather than as a people analytics application (Peretz-Andersson et al., 2024).

This raises several challenges. IoT-enabled systems may involve the collection of sensitive data related to well-being and workplace conditions, requiring careful governance and protection. In workplace settings, such data may blur the boundary between support and surveillance. For example, sensor-based well-being systems may be introduced to support employee well-being, but employees may also

perceive them as forms of monitoring. Responsible implementation therefore requires a clear purpose, transparent data practices and stakeholder involvement (Brodén et al., 2025). For Swedish organizations, the key issue is not whether IoT can generate useful data, but whether organizations have the governance, organizational capability and employee trust required to use such data responsibly. IoT-enabled technologies should not be adopted simply because real-time data are available. Instead, organizations should consider whether such data are necessary, how they will be interpreted and governed, who will have access to them, and how employees will be informed and involved in their use.

04 Ethics and data governance are central challenges, not side issues

Ethical and data governance challenges emerged consistently across the reviewed studies, regardless of the application domain.

The most prominent concerns include algorithmic bias, discrimination, privacy, transparency, accountability, auditability, data quality and the role of



third-party platforms. These challenges are particularly evident in studies of recruitment and automated decision-making, but also arise in research on IoT, cybervetting, public-sector AI governance and digital work environments (Blom Lussi et al., 2024; Brodén et al., 2025; Hedenus, Backman & Håkansson, 2021; Larsson, White & Bogusz, 2024; Palm, Asp & Håkansta, 2025).

One important challenge concerns algorithmic bias. Algorithmic hiring is often promoted as a way to reduce subjective human bias, but the reviewed studies suggest that bias may be introduced at multiple stages, including historical data, model design, platform design and practices, managerial interpretation and later stages of recruitment (Bursell & Roumbanis, 2024; Larsson, White & Bogusz, 2024). As a result, a system may appear neutral while still producing unequal outcomes. Monitoring recruitment outcomes and assessing potential discrimination across protected characteristics are

therefore important components of responsible recruitment governance.

Another challenge concerns the indirect use of AI. Employers may rely on digital recruitment platforms that incorporate AI or automated decision-making without fully recognizing how these technologies influence recruitment decisions (Larsson, White & Bogusz, 2024). This can make it more difficult to determine who is responsible for the outcomes of AI-supported decisions. When recruitment decisions involve third-party platforms, responsibility may be shared among employers, platform providers and technology developers. The reviewed studies also highlight limited transparency and auditability of third-party systems, making it difficult for organizations to evaluate how these technologies operate (Larsson, White & Bogusz, 2024).

A third challenge concerns the gap between ethical principles and operational practice. The reviewed studies on public-sector AI governance emphasize principles such as fairness,



transparency and accountability, yet these principles may remain abstract unless they are translated into organizational routines and concrete procedures (Blom Lussi et al., 2024). The evidence suggests that organizations need more than policy statements; they also require practical procedures for risk assessment, documentation, data protection, procurement, human oversight and accountability (Ranerup & Svensson, 2024).

Privacy is also a recurring concern across the reviewed studies. Digital HR systems, cybervetting and IoT-enabled well-being technologies may involve the collection and use of sensitive personal data. In recruitment, employers' use of online information may blur the boundary between private and professional life (Hedenus, Backman & Håkansson, 2021). In IoT-enabled applications, sensor-

generated data may raise additional concerns about privacy and appropriate data governance (Brodén et al., 2025). In public-sector settings, data governance is also closely linked to legality, legitimacy and public trust (Blom Lussi et al., 2024; Ranerup & Svensson, 2024).

Addressing these challenges requires translating general ethical language into practical governance arrangements. The reviewed studies suggest that organizations should establish clear purposes for data use, ensure appropriate data governance, document decision-making processes, provide human oversight and clarify accountability (Blom Lussi et al., 2024; Ranerup & Svensson, 2024). More broadly, governance should be integrated into the design, implementation and ongoing use of AI- and IoT-enabled workforce technologies.



05 Organizational capability is more important than technology adoption

Evidence from Swedish public organizations suggests that people analytics maturity remains relatively low and is largely confined to descriptive reporting rather than advanced analytical or AI-supported applications (Espegren, 2025). One important contribution of this reviewed study is that the adoption of people analytics is driven not only by expectations of improved efficiency but also by organizational legitimacy. Organizations seek to demonstrate that they are modern, evidence-informed and capable of responding to increasing demands for accountability and transparency (Espegren, 2025). However, these ambitions often exceed existing organizational capabilities, meaning that people analytics remains confined to descriptive reporting rather than more advanced analytical applications. The

reviewed evidence indicates that organizations do not adopt people analytics simply because the technology is available. Instead, adoption depends on organizational capability, including analytical competence, leadership support, stakeholder acceptance and the ability to integrate analytics into broader organizational practices.

Interestingly, employee-related benefits were rarely identified as a primary motivation for adopting people analytics in this reviewed public-sector study. Instead, adoption was more closely associated with reporting, transparency and organizational legitimacy than with personalized employee development or well-being. This finding contrasts with much of the international people analytics literature and suggests that Swedish public



organizations remain at an early stage of people analytics maturity (Espegren, 2025). This distinction matters for practice, that is, people analytics used primarily to generate facts for managerial decision-making serves a fundamentally different organizational purpose than people analytics designed to measure and support employee growth and well-being, and the reviewed evidence suggests that the latter has so far received comparatively little priority in Swedish organizations. Strengthening this employee-facing dimension of people analytics, alongside its decision-support function, is therefore one of the clearer practical recommendations to emerge from this review. Similar conclusions emerge from manufacturing SMEs, where successful AI implementation depends not only on technological investment but also on organizational capability, including data infrastructure, internal competence, governance arrangements and organizational learning (Peretz-Andersson et al., 2024). The reviewed studies also suggest that digitalization may create

unintended work environment consequences if implementation is poorly supported by organizations. These include increased workload, reduced opportunities for informal learning and challenges to collaboration during periods of organizational change (Håkansta, 2022; Palm, Asp & Håkansta, 2025).

These findings also resonate with broader research on the daily work of HR practitioners in Sweden. HR professionals often devote much of their time to operational support and responding to managers' immediate needs, leaving limited opportunities for strategic development and organizational innovation (Wallo & Coetzer, 2022). This organizational reality may partly explain why advanced people analytics and AI-supported HR practices have developed relatively slowly despite Sweden's generally high level of digitalization. This interpretation is further supported by recent evidence from the CGHRM/Cranet report, which shows that Swedish organizations remain comparatively conservative in



the adoption of HR analytics, algorithmic HR and advanced digital HRM despite operating within one of the world's most digitally advanced economies (Tengblad & Nord, 2024). The challenge therefore appears to be less about access to digital technologies than about developing the organizational capabilities required to integrate these technologies into HR practice.

Overall, the reviewed studies suggest that organization also need governance capacity, analytical competence, digital maturity, interdisciplinary collaboration and employee involvement to realize the potential of AI and related digital technologies. In this sense, organizational capability rather than technology itself emerges as the central determinant of successful digital workforce transformation.



KNOWLEDGE GAPS

01 Conceptual fragmentation

The review reveals several important knowledge gaps. First, the reviewed evidence is characterized by considerable conceptual fragmentation. Relevant studies frequently examine people analytics-related practices without explicitly using the terms people analytics or HR analytics, instead adopting concepts such as algorithmic hiring, automation in job recruitment (Bursell & Roumbanis, 2024; Paramita, Okwir & Nuur, 2024). As a result, evidence is

dispersed across different disciplines, organizational settings and conceptual traditions, making it more difficult to identify, compare and synthesize the current knowledge base. Future research should therefore examine how organizations conceptualize, implement and govern AI and related digital technologies across different organizational contexts, while also developing more consistent conceptual frameworks that support cumulative knowledge building.

02 Beyond recruitment

Second, the reviewed evidence remains heavily concentrated on recruitment and selection, with considerably less attention devoted to

work and organizational practices beyond hiring. Recruitment dominates the reviewed literature (Bursell & Roumbanis, 2024; Hedenus, Backman



& Håkansson, 2021; Larsson, White & Bogusz, 2024; Paramita, Okwir & Nuur, 2024), whereas relatively few studies examine how AI and related digital technologies influence employee development, organizational learning, work environments, capability development, retention or longer-term

organizational change. Given their importance for organizational performance, employee well-being and responsible digital transformation, these areas need substantially greater empirical attention.

03 IoT and digital infrastructures

Third, evidence on IoT-enabled people analytics remains limited in the Swedish literature. Existing studies primarily examine IoT within educational settings, manufacturing and broader digital transformation rather than as an established component of people analytics or HR analytics (Brodén et al., 2025; Peretz-Andersson et al., 2024). Although these studies demonstrate that IoT can support data generation, workplace monitoring and organizational digital infrastructure, they provide only limited evidence on how IoT is currently integrated into organizational decision-making regarding work and workforce.

Instead, IoT primarily appears as an enabling technology that complements AI and broader digital transformation initiatives rather than as a mature people analytics application. In principle, IoT-generated data, such as wearable sensor data on activity and fatigue, environmental sensors monitoring noise, air quality or workload, and location or scheduling systems, could feed directly into people analytics processes alongside conventional HR data, supporting applications such as safety and well-being monitoring, workload balancing and smart scheduling. The reviewed studies, however, show that this



potential is not yet realized in Swedish organizations. IoT data are currently collected and used largely in isolation from HR analytics and decision-making infrastructures, rather than being combined with them.

Future research should therefore move beyond examining IoT as a stand-alone technology and investigate how AI, IoT and human capabilities interact in organizational settings (Brodén et

al., 2025; Peretz-Andersson et al., 2024). Particular attention should be given to how IoT-generated data can support organizational learning, work environments, employee well-being, capability development and responsible decision-making, as well as how organizations can combine technological resources with human resources through appropriate governance, employee participation and cross-functional collaboration.

04 Long-term organizational change

Fourth, little is currently known about the long-term organizational consequences of AI and related digital technologies. Most reviewed studies focus on technology adoption, implementation or short-term organizational outcomes, whereas relatively little attention has been given to how organizational capabilities, governance arrangements, work practices and digital maturity evolve

over time. This mirrors a broader pattern in the reviewed evidence, that is, digital HRM investments have so far tended to be piecemeal, addressing individual tools or single application areas such as recruitment rather than being embedded in a longer-term organizational development trajectory. Building organizational capability that endures requires organizations to treat AI, IoT and people analytics not as



isolated pilot projects but as part of a sustained, coordinated programme of capacity building, in which governance arrangements, competence development and technology adoption are planned and reviewed together over several years rather than project by project. Longitudinal and comparative research would help

explain how organizations develop, sustain or fail to develop the capabilities required for responsible digital transformation, and how these processes influence employees, managers, organizational performance, trust and work environments over time.

05 Human-centered perspectives

Fifth, the human experience of digital technologies remains under-researched. Although several reviewed studies include HR employees, teachers, labour inspectors, caseworkers or volunteers, most primarily focus on organizational adoption, governance or managerial decision-making rather than on how individuals experience digital technologies in their everyday work (Alkusaibati et al., 2025; Håkansta,

2022; Palm, Asp & Håkansta, 2025; Ranerup & Svensson, 2024). Future research should therefore examine how employees, job applicants, frontline professionals and other organizational actors experience being supported, monitored, evaluated or influenced by AI and related digital technologies, and how these experiences shape trust, well-being, technology acceptance and organizational outcomes.



06 Governance and organizational capability

Finally, the reviewed evidence suggests that governance and organizational capability remain underdeveloped areas of research. Although many studies identify ethical, legal and governance challenges, relatively few examine how organizations develop the capabilities required to implement AI and related digital technologies responsibly in practice (Blom Lussi et al., 2024; Espegren, 2025; Larsson, White & Bogusz, 2024; Peretz-Andersson et al., 2024; Ranerup & Svensson, 2024).

Future research should therefore move beyond identifying governance principles and investigate how organizations translate these principles into everyday organizational practice

through leadership, organizational learning, procurement, accountability, transparency, employee participation and cross-functional collaboration. Particular attention should be given to how different organizational contexts, such as public administration and private organizations, shape the capabilities required for responsible digital transformation. Rather than viewing digitalization as the responsibility of HR functions alone, future research should examine how HR professionals, managers, IT specialists and other organizational actors jointly develop the organizational capabilities needed to realize the potential of AI and related digital technologies (Peretz-Andersson et al., 2024).

07 Implications



The reviewed evidence points to several practical implications for organizations using or considering AI and related digital technologies. Table 1 summarizes the main organizational challenges identified across the different sectors and occupational settings included in the review, together with possible practical responses.

For HR professionals, the reviewed evidence suggests that digital workforce management should be understood as an organizational capability rather than simply an HR function. AI, people analytics and related digital technologies increasingly involve multiple organizational functions, including HR, IT, legal, procurement and operational functions. Consequently, HR professionals need to move beyond their traditional administrative and advisory roles towards facilitating cross-functional collaboration, organizational learning and responsible governance. This shift also requires new competencies in data literacy, digital technologies,

organizational change and evidence-informed decision-making (Espegren, 2025; Wallo & Coetzer, 2022). The reviewed evidence also suggests that digitalization may reshape traditional HR roles by shifting emphasis from routine administrative work towards analytical, governance and capability-building functions (Hedenus, Backman & Håkansta, 2021; Larsson, White & Bogusz, 2024; Paramita, Okwir & Nuur, 2024). In particular, HR professionals should prioritize people analytics applications that measure and support employee growth and well-being, not only those that generate facts for managerial decision-making, since the reviewed evidence suggests this employee-facing dimension has so far been comparatively neglected in Swedish practice.

For managers, successful implementation is as important as technology adoption. Digital tools should not be introduced without adequate time for learning, support, dialogue and evaluation. Managers need training not only in how to use



digital tools, but also in how to interpret outputs, recognize potential bias, preserve professional human judgement and respond to employee concerns. Managers need to create the organizational conditions under which AI can be used responsibly, which has been suggested by several reviewed studies (Håkansta, 2022; Paramita, Okwir & Nuur, 2024; Peretz-Andersson et al., 2024).

Public organizations need both technical capability and institutional legitimacy. For public-sector organizations, responsible people analytics must be aligned with principles of legality, legitimacy and public value. Efficiency alone is insufficient. Automated and data-driven systems should be transparent, accountable and consistent with anti-discrimination legislation, data protection requirements and work environment responsibilities.

For private-sector organizations, AI-enabled recruitment technologies require particular attention. Employers should not assume that commercial recruitment platforms are either neutral

or fully transparent (Larsson, White & Bogusz, 2024). When selecting AI-enabled recruitment systems, organizations should seek evidence of bias testing, documentation, data protection, explainability and accountability arrangements. Organizations should also monitor recruitment outcomes after implementation rather than relying solely on vendor claims (Bursell & Roumbanis, 2024). Moreover, investments in AI-supported recruitment should be evaluated not only in terms of efficiency but also in relation to fairness, organizational capability and long-term organizational learning.

For researchers, this review highlights the need for broader conceptual integration. AI, IoT and people analytics are often examined separately, but the reviewed findings suggest that they increasingly intersect in work- and workforce-related decision making. Future research should integrate HRM, public administration, organizational studies,



information systems and engineering perspectives.

Across all organizational contexts, the central implication of this review is that responsible digital workforce management is fundamentally an organizational capability challenge rather than simply a technological one. The reviewed evidence consistently shows that the successful use of AI, IoT and related digital technologies

depends on governance arrangements, analytical competence, digital maturity, interdisciplinary collaboration and employee participation as much as on technological innovation itself. Future investments should therefore focus not only on acquiring new technologies but also on developing the organizational capabilities required to implement them responsibly and sustainably.

Table 1. Key organizational challenges and practical responses for the responsible use of AI and digital technologies in work and organizational settings

Challenge identified	Why it matters	Practical response
Fragmented conceptual landscape	Relevant digital practices are dispersed across different labels and organizational contexts	Identify digital workforce practices across HR, IT and operational functions and establish shared governance
Digital technology adoption is uneven across domains	AI has so far the greatest influence on workforce-related decisions, mainly in recruitment, while other domains such as training, engagement and retention remain comparatively under-researched	Treat AI-enabled recruitment as an organizational process requiring governance, transparency and human oversight, and extend analytical attention to post-hire domains such as training, engagement and retention
IoT's potential for people analytics remains underused	IoT could generate real-time data on well-being, safety and working conditions, but current applications remain disconnected from HR analytics and decision-making processes	Pilot IoT-enabled data collection (e.g., wearables, sensors) in partnership with HR analytics functions, with clear governance and employee involvement
Ethical principles require operational governance	The reviewed studies show good ethical awareness but limited operational routines; without concrete procedures, this can result in either governance gaps or excessive caution that stalls beneficial innovation	Develop governance procedures, accountability mechanisms and transparent implementation practices
Organizational capacity building is underestimated	Organizations often underestimate the sustained investment in analytical, governance and learning	Invest in analytical capacity, digital maturity, interdisciplinary collaboration and organizational learning as a long-term, ongoing



capacity required to realize value from AI and digital technologies	commitment rather than a one-off project
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CONCLUSION

AI, IoT and related digital technologies are increasingly reshaping organizational practices across recruitment, public administration, education, manufacturing and other work-related contexts. However, this knowledge review shows that empirical research explicitly framed as people analytics or HR analytics remains limited in Sweden. Instead, relevant evidence is distributed across adjacent fields, including algorithmic hiring, automated decision-making, cybervetting, IoT-assisted well-being, ICT implementation and AI governance.

Across the reviewed studies, recruitment emerged as the most developed application area, while evidence on post-hire applications such as employee engagement, retention, training and workforce development remains comparatively limited. AI is substantially more visible than IoT in work-related decision-

making, whereas IoT is primarily discussed as an enabling technology for data generation, workplace monitoring and digital infrastructure rather than as a mature people analytics application. More importantly, the reviewed evidence consistently suggests that the principal challenges are organizational rather than purely technological. Governance arrangements, organizational capability, analytical competence, professional judgement, employee trust and responsible implementation appear to be as important as technological innovation itself in determining whether digital technologies create organizational value. Taken together, three overarching conclusions emerge from this review. First, digital HRM adoption in Sweden has so far been of a piecemeal character, concentrated on recruitment, while the larger potential benefit may lie in using AI and automation technology to transform



HR processes more broadly. Second, comparatively little emphasis has been placed on enhancing employee experience, both within HR analytics or people analytics specifically and in digital HRM more generally, which may lead to lower employee engagement and organizational commitment. Third, realizing the value of these technologies depends on sustained capacity development linked to learning and competence acquisition. A lack of such investment is likely to result in a widening gap between organizations' factual capacity and their potential capacity to use AI, IoT and people analytics responsibly and effectively.

From a practical perspective, this review suggests that organizations should not regard AI, IoT or people analytics simply as technological innovations. Instead, they should be viewed as components of broader organizational capability. Developing responsible digital organizations requires investment not only in technological infrastructure but also in governance, data quality, analytical

competence, organizational learning and interdisciplinary collaboration among HR professionals, managers, IT specialists and other organizational actors. Although none of the reviewed studies explicitly quantified the financial costs of inefficient HR practices or low digital maturity, the evidence consistently suggests that insufficient organizational capability may result in failed implementation, underutilization of digital technologies, increased workload, reduced employee trust, governance risks, weaker professional discretion and limited use of analytical information (Espegren, 2025; Palm, Asp & Håkansta, 2025; Peretz-Andersson et al., 2024). In this respect, investing in organizational capability should be regarded as a prerequisite for realizing the potential benefits of AI and digital technologies rather than as an additional organizational cost.

This knowledge review should also be interpreted in light of several methodological limitations. The review deliberately focused on empirical studies published between 2015 and



2025 in peer-reviewed English-language journals, primarily indexed in international databases. Consequently, conceptual and theoretical publications, studies published in Swedish, conference papers, working papers, professional reports and other forms of grey literature were excluded. Master's theses and doctoral dissertations were also beyond the scope of the review, although these sources increasingly document emerging organizational practices related to AI, digital technologies and people analytics in collaboration with Swedish organizations. Future research should therefore combine peer-reviewed evidence with practice-oriented studies and other empirical sources to obtain a more comprehensive understanding of digital workforce practices in Sweden. In particular, the recent CGHRM/Cranet report suggests that, although the adoption of advanced HR

analytics and algorithmic HR remains comparatively limited, many Swedish organizations have begun experimenting with AI and digital HR practices, indicating that organizational practice may currently be developing more rapidly than the published academic literature (Tengblad & Nord, 2024). The CGHRM/Cranet database therefore represents an important foundation and resource for future empirical research examining how AI, digital technologies and organizational capabilities are evolving across Swedish organizations.

Ultimately, the challenge for Swedish organizations is not whether AI and related digital technologies should be adopted, but how they can be integrated into organizational practices in ways that strengthen organizational capability, support employees and create sustainable organizational value.



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REFERENCES

Alkusaibati, W., Pilemalm, S., Granberg, T. A., Prytz, E., & Vogel, N. E. (2025). From dispatch to impact: Evaluating ICT-enabled co-production of emergency response. *International Journal of Disaster Risk Reduction*, 130, 105833.

<https://doi.org/10.1016/j.ijdr.2025.105833>

Angrave, D., Charlwood, A., Kirkpatrick, I., Lawrence, M., & Stuart, M. (2016). HR and analytics: Why HR is set to fail the big data challenge. *Human Resource Management Journal*, 26(1), 1-11. DOI: <http://doi.org/10.1111/1748-8583.12090>

Barocas, S., & Selbst, A. D. (2016). Big data's disparate impact. *California Law Review*, 104, 671-732. <http://dx.doi.org/10.2139/ssrn.2477899>

Blom Lussi, E., Larsson, S., Högberg, C., & Kaun, A. (2024). Governing the automated welfare state: Translations between AI ethics and anti-discrimination regulation. *Nordic Welfare Research*, 9(2), 180-192. DOI:

<https://doi.org/10.18261/nwr.9.2.6>

Brodén, K., Andersson, J., Kitkowska, A., Ahmad, A., & Mozelius, P. (2025). Gathering requirements for IoT-assisted wellbeing in elementary school - A multi-stakeholder perspective. *Frontiers in Education*, 10, 1580666.

<https://doi.org/10.3389/feduc.2025.1580666>



Bursell, M., & Roumbanis, L. (2024). After the algorithms: A study of meta-algorithmic judgments and diversity in the hiring process at a large multisite company. *Big Data & Society*, 11(1): 1-18. <https://doi.org/10.1177/20539517231221758>

Engberg, E., Hellsten, M., Javed, F., Lodefalk, M., Sabolová, R., Schroeder, S., & Tang, A. (2025). Artificial intelligence, hiring and employment: Job postings evidence from Sweden. *Applied Economics Letters*, 1-6.
<https://doi.org/10.1080/13504851.2025.2497431>

Espegren, Y. (2025). Reasons for HR analytics adoption in public sector organisations: Evidence from Swedish public administrations. *Personnel Review*, 54(7), 1621-1642. <https://doi.org/10.1108/PR-03-2024-0219>

Hedenus, A., Backman, C., & Håkansson, P. (2021). Whom do you know? Recruiters' motives for assessing jobseekers' online networks. *The International Journal of Human Resource Management*, 32(8), 1754-1777.
<https://doi.org/10.1080/09585192.2019.1579245>

Håkansta, C. (2022). Ambulating, digital and isolated: The case of Swedish labour inspectors. *New Technology, Work and Employment*, 37(1), 24-40. <https://doi-org.ezproxy.ub.gu.se/10.1111/ntwe.12211>

Larsson, S., White, J. M., & Bogusz, C. I. (2024). The artificial recruiter: Risks of discrimination in employers' use of AI and automated decision-making. *Social Inclusion*, 12, 7471. <https://doi.org/10.17645/si.v12.7471>

Marler, J. H., & Boudreau, J. W. (2017). An evidence-based review of HR analytics. *The International Journal of Human Resource Management*, 28(1), 3-26. <https://doi-org.ezproxy.ub.gu.se/10.1080/09585192.2016.1244699>



Palm, K., Asp, A., & Håkansta, C. (2025). Implementing digital technologies in the school setting - How does it relate to work environment? *Educational Review*, 77(6), 1848-1866. <https://doi.org/10.1080/00131911.2024.2368183>

Paramita, D., Okwir, S., & Nuur, C. (2024). Artificial intelligence in talent acquisition: Exploring organisational and operational dimensions. *International Journal of Organizational Analysis*, 32(11), 108-131. <https://doi.org/10.1108/IJOA-09-2023-3992>

Peretz-Andersson, E., Tabares, S., Mikalef, P., & Parida, V. (2024). Artificial intelligence implementation in manufacturing SMEs: A resource orchestration approach. *International Journal of Information Management*, 77, 102781. <https://doi.org/10.1016/j.ijinfomgt.2024.102781>

Ranerup, A., & Svensson, L. (2024). Value positions in the implementation of automated decision-making in social assistance. *Nordic Social Work Research*, 14(4), 471-485. <https://doi.org/10.1080/2156857X.2022.2062040>

Schmidt, M., Kjellström, S., & Avby, G. (2026). HR practitioners' role in leadership development and their use of tailoring strategies. *International Journal of Training and Development*, 1–11. <https://doi.org/10.1111/ijtd.70040>

Strohmeier, S. (2020). Smart HRM – a Delphi study on the application and consequences of the Internet of Things in Human Resource Management. *The International Journal of Human Resource Management*, 31(18), 2289-2318. <https://doi.org/10.1080/09585192.2018.1443963>

Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resource management: Challenges and a path forward. *California Management Review*, 61(4), 15-42. <https://doi.org/10.1177/0008125619867910>



Tengblad, S., & Nord, D. (2024). *Betyder AI alls inte? Digitalisering, HR-analytics och algoritmiskt HR i Sverige: Resultat från Cranet-undersökningen*. Centre for Global Human Resource Management (CGHRM), University of Gothenburg.

Wallo, A., & Coetzer, A. (2023). Understanding and conceptualising the daily work of human resource practitioners. *Journal of Organizational Effectiveness: People and Performance*, 10(2), 180-198. <https://doi.org/10.1108/JOEPP-01-2022-0013>