

How AI with human touch saved IBM \$3.5bn

When its HR team faced a data deluge, the business used its own tech to accelerate career advancement and resolve staff queries



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Few companies can say they've been around for more than a century, particularly in the frenetic world of tech. But IBM – born one hundred and one years ago under the leadership of a man named Thomas J. Watson – has endured... thanks, in no small part, to its people-centric approach.

With a global workforce of over 270,000 staff in more than 177 countries, IBM's HR department is at the centre of a monumental task, and one that's only increased with the advance of digitalisation and the deluge of data it brings.

Drowning in time-consuming manual processes and a mountain of spreadsheets and paperwork, the HR team found itself facing the same challenges as many of the company's customers.

So they had a bold idea: let's become "client zero" for our own breakthrough technology. The tool in question? Watsonx, a powerful AI platform named after the visionary leader who started it all.

"We had HR professionals working 10 to 12-hour days, weekends, just to keep up," recalls Jon Lester, IBM's VP of HR technology, data and AI.

"We knew there had to be a better way. It was time to utilise the systems we were building for our clients and completely change the way we work."

New levels of productivity

The problem confronting IBM HR – and the employees it supported – was a common one. Too much data spread across too many systems.

Consider the quarterly promotion cycle for consultants. Each time around, thousands of managers would sift through performance information and skills and learning information to identify promotion-ready candidates. They'd fill out lengthy nomination forms, which then had to be passed up the chain for approval.

The procedure was time-consuming – approximately five hours per manager per quarter – and required considerable effort from HR to keep everything on track.

[Watsonx Orchestrate](#), IBM's original AI-powered workflow automation tool, presented a solution that has a chat capability, business context and a memory. The system was trained on HR's policies and data, and then put to work.

"With watsonx Orchestrate, we could automate much of the administrative work in the promotion cycle," Lester explains. "It could read attainment reports, determine if an employee met the criteria and auto-fill the nomination form." Human reviewers retained final decision-making responsibility, with watsonx Orchestrate supporting the process.

Time spent on the process dropped sharply, from five hours to less than one.

The AskHR Digital Assistant, also powered by watsonx Orchestrate, brought similar efficiencies to employee inquiries, which had previously numbered 16 million per year.

Instead of waiting days for a response from an overworked HR representative, staff could get instant answers from the chatbot. In 94 per cent of cases, AskHR provided information or routed issues in a way that avoided the need for further human handling.

All told, IBM estimates that watsonx Orchestrate for HR helped reduce ticket numbers by approximately 75 per cent and significantly [increased productivity](#) for IBM employees. As part of a much wider productivity programme, it contributed to IBM's reported \$3.5 billion in productivity gains for IBM*. But the company knew it was just scratching the surface of what AI could help enable.



Major step forward

Earlier this year, Lester and colleagues set about trialling the latest Watson product utilising large language models through an agentic platform, IBM's latest AI innovation. Unlike its predecessor, watsonx agentic makes use of autonomous "agents" to transform how employees interact with HR.

The agentic AI that watsonx Orchestrate enables represents a major step forward from the rules-based automation of old. It can analyse context, generate recommended actions, and work collaboratively with other agents, helping to complete multi-step processes with minimal human involvement but ethical human oversight. In other words, humans make decisions for humans, but better, quicker decisions supported by AI.

Take an annual leave request. With earlier platforms, employees would provide dates, then wait for manual checks and approvals. As Lester explains, with watsonx Orchestrate, employees can enter a natural language request such as: "I want to take next Friday off."

The system then takes charge, checking the worker's calendar, verifying their leave balance, submitting the request and rescheduling any conflicting engagements.

Looking ahead, IBM envisions a full suite of specialised AI agents, each focused on a different aspect of the employee experience. A career coach agent could suggest custom learning paths, while a benefits navigator could optimise healthcare choices based on individual family needs.

Although the project is still in the pilot phase, early feedback has been encouraging, particularly around watsonx's personalisation. Lester noted that IBM employees had responded positively to AI features that help automate routine tasks, "freeing up their time and mental energy for more meaningful work".

His team's upcoming "travel agent" – set for launch next year – exemplifies this focus on individual preferences, automatically generating itineraries, booking flights and hotels, even making restaurant reservations, all based on an employee's tastes and past travel behaviour.



Power to the people

Across sectors, specialisms and organisational sizes, the objectives are consistent: increase productivity, elevate the employee experience, and analyse data for better decision making.

As IBM's own journey demonstrates, a personalised, agentic approach is key to realising these goals. That's true whether you're a bank utilising AI to streamline customer onboarding, from identity checks to risk profiling, or an airline looking to finesse its scheduling to minimise delays and improve passenger satisfaction.

This broad, cross-industry applicability was a central consideration in the development of watsonx Orchestrate. "It's an open platform, built to integrate into the diverse IT architectures and technical landscapes that most organisations have," notes Sebastian Weir, partner and UK leader for AI, automation and analytics at IBM Consulting.

"It's designed to work with the data and different solutions and technology vendors that businesses already use – that's relatively uncommon in the market."

A high degree of flexibility like this is crucial to the success of any digital initiative – but only if the people it is designed to support are fully on board. Driving adoption requires robust governance, clear communication and leading by example.

AI can complete tasks, generate insights and optimise processes in ways that were once unimaginable, but, as Lester observes, "It's still all about humans solving problems."

That is what agentic automation and systems like watsonx Orchestrate aim to achieve: empowering real people to perform to their highest ability.

*Watsonx Orchestrate contributed to IBM's reported \$3.5 billion in productivity run-rate savings as disclosed in IBM's January 2025 earnings call, covering January 2023 through December 2024.



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