



The Future of Work with AI

IN COLLABORATION WITH $OD \Rightarrow XA$



Executive summary

We are very pleased to share in this report the results of our study on Al's impact on work. Even if the Al revolution is not visible yet in productivity figures, it is already silently revolutionizing day to day work and labour. We launched this study to understand where AI's impact on work will land between two opposite and frequently heard statements: on one extreme "AI is just a superficial technological gadget we will soon stop hearing about", and on the other extreme "AI will massively automate and replace work". This study tackles the paradox between Generative AI's fast adoption at work and the apparent lack of enterprise productivity gains. Through a survey and interviews, we aim at unveiling AI impact mechanisms and at predicting in which conditions and to what extent macroscopic productivity gains will be measured and how work will be transformed. Finally we analyze how enterprises can govern AI for a successful transformation.

We started by analyzing the impact of Traditional AI on work and examining how our historical perspective can help us predict Generative AI effects on jobs. We found that the value of Traditional AI was way beyond simple automation: it optimises and scales processes at a level of granularity and accuracy simply beyond human reach. It does automate the tasks of people who were manually performing computations and making decisions (upstream): demand forecasters, invoice classifiers, client segment designers... with particularly tangible productivity gains when the manual task was repetitive as in invoice classification. In most cases however, the strongest impact of Traditional AI is its ability to fuel processes (downstream) with information at new precision levels yielding high operational productivity gains (e.g., operations with real-time resource optimization, campaign management including personalization scores). As a consequence, Traditional AI stimulates growth and creates more jobs than it automates. In our survey, 59% of AI users reported that AI created jobs in their company, including technical jobs to build and maintain AI applications and business jobs to properly integrate AI in daily processes. We observed that the impact of Traditional AI on work is identical to what we see in the early Generative AI revolution. First, people whose tasks were automated spend more time on higher value tasks, with a particular shift to more customer-facAI users report saving 57 minutes per day on average and the top 4% of AI users save more than 3 hours.

ing time. Second, workers need to reskill to operate in new Al-driven processes. Finally, experts who were manually steering processes, like demand forecasters and support experts, tend to be centralized in corporate teams to supervise, interpret and validate Al-driven applications.

To better understand the impact of Generative AI on productivity and process performance and solve the paradox, it is important to first analyze its effects on early individual adopters. Generative AI assistants suddenly made AI and its benefits accessible to all individuals, and AI adoption at work is unstoppable. Although very recent, 12% of workers already use AI at work. 92% of these early adopters are satisfied with their AI experience and 83% find their work simpler and more pleasant. While macro-economic productivity gains have not yet been measured, our study found significant individual productivity gains today, suggesting a latent productivity boom on the horizon. First, Al users report saving 57 minutes per day on average and the top 4% of AI users save more than 3 hours. Second, 56% of AI users claim to be performing more tasks than before thanks to this saved time, and more generally, 81% of AI users have already noticed productivity gains in their department.



5%

Agentic AI will accelerate workflows and yield major leaps in service quality and lead times. AI will automate tasks, running much faster, reducing human errors, and eliminating idle workflow times.

However, these individual productivity gains are currently too diffuse, unreliable and scattered across teams to add up. As AI adoption spreads and AI agent performance improves, individual productivity will keep increasing until top-down enterprise governance reorganizes processes and work to achieve visible macro-level productivity gains. We believe that work displacement will be facilitated by Al itself. Indeed, thanks to enterprise knowledge assistants continuously maintained by experts, employees will learn their new jobs faster. With better access to knowledge, which has been experienced by 69% of AI users in our survey, we found that workers become generalists and the workforce is more polyvalent and flexible. This new flexibility will help HR teams change job descriptions, allocate redesigned process tasks across workers and also move workers across departments, finally unlocking the latent productivity boom.

The productivity boom will be particularly noticeable in **marketing, sales and operations**, and more precisely in back-office and front-office jobs whose workers follow **well-defined workflows (clerks, call centers, ticket management, etc.).** While Traditional AI orients workflows with predictions and scores, AI agents can also execute

the workflow tasks in (semi) autonomy. They will automatize these workflows through revolutionary and flexible cognitive skills: automatic data capture from unstructured documents, autonomous problem exploration capabilities, and capacity to trigger tools for automation. The shift from Al assistance with "humans in the loop" to autonomous Al agents marks a potential turning point in productivity that could be reached if AI ever earns a team's full trust. It is important to note that trust is one of the key factors preventing full automation and work replacement. Without trust, agents need supervision, maintenance and human fallback mechanisms. In other words, new processes will rely on a hybrid approach that combines human oversight with agents, preventing full workforce replacement. Al agents will either induce a workforce partial reduction, or, as in all the cases we studied, enable teams to handle more tasks without additional hiring.

Like Traditional AI, not only will Generative AI bring drastic productivity gains, but it will also become a key service performance differentiator. Agentic AI will accelerate workflows and yield major leaps in service quality and lead times. AI will automate tasks running much faster, reduce human errors and eliminate idle workflow times. Such idle times typically occur during case handover between two teams or colleagues, e.g., when requesting and transmitting data or validating a risky decision. For each single case to be processed, one can imagine that agents will perform all successive tasks of a workflow in autonomy and one single augmented supervision worker will validate the end agentic work result, removing typical workflow handover bottlenecks. The impact of Agentic Al on service levels is so high that companies that do not embark in agentic, cheap and high-quality services, risk disruption in their market.

Software, Data, and Al engineers are on the verge of profound transformation as Al technologies continue to evolve. The proliferation of low-code and no-code platforms will empower millions of non-technical users to create prototypes and applications, leading to an incredible path of innovation. While these tools simplify entry-level development, the resulting ecosystem of fragmented, unstructured software will still require experienced engineers





For a successful AI transformation, enterprises need to step up, govern their AI initiatives and anticipate AI's impact on their workforce.

to scale, secure, and standardize it. This shift places data quality and scalable data management at the forefront, as errors in foundational layers could undermine entire Al-driven systems. At the same time, Al tools promise to automate repetitive tasks such as code generation, debugging, and documentation, raising concerns for lower-complexity roles. However, these tools currently lack the depth to replace skilled developers, who remain essential for refining, optimizing, and integrating AI outputs into production-grade systems (The Word Economic Forum expects a large increase - up to + 110% in Big Data! - in tech jobs in the next 5 years). The future of software engineering will increasingly demand a hybrid approach, blending automation with expertise, where engineers leverage AI to accelerate innovation while maintaining control over complexity, quality, and resilience.

As a consequence, not only Generative AI will impact productivity and process performance in ways similar to Traditional AI, but it **will also stimulate growth through a creativity & innovation boom resulting in new business effervescence and massive job creations.** Indeed, coding a new prototype application will be accessible to everyone, and R&D will greatly accelerate thanks to AI with automatic prototyping, instant market & literature research, test data generation, simulation code, etc. Combined with the productivity revolution enabled by AI services, creating small new businesses to capitalize on new inventions will be easier than ever, and we anticipate a rise in startups and new markets for new materials, cures, machines, and services.

On a macro-economic level, we believe that Agentic Al, as shown by our survey, similar to Traditional Al but on a larger scale, **will induce more positive than negative effects on the workforce.** Based on its large survey of company hiring projections, the World Economic Forum predicts a +22% job increase linked to Al per year in the next 5 years. Repetitive and arduous office jobs, such as clerical jobs, will decrease in volume and be partly

replaced with more interesting, less repetitive jobs, such as AI agent & workflow monitoring. Meanwhile, AI will require real world infrastructure and electricity facilities. Large-scale new AI projects are already underway, such as the American "Stargate" AI infrastructure project that is creating 100 000 jobs. Most importantly, and this is a major impact, the workforce will also greatly benefit from AI-driven business growth thanks to a dual productivity and innovation boom.

For a successful AI transformation, enterprises need to step up, govern their Al initiatives and anticipate Al's impact on their workforce. They will have to imagine their own "future of work" with social partners and look for work well-being improvement opportunities. They will have to set their AI objectives, stimulate innovation, and target which processes to improve with AI, which workflows to accelerate with AI agents, and which teams to augment with enterprise AI assistants. Then, they need to spend time on training and on transforming their workforce. The need for training is critical: even among Al early adopters who were already trained, 47% believe that they still require further training. Training topics are diverse and do not only concern AI tooling skills. Workers also need to be inspired in their way of incorporating AI in their workflows, to learn about new domains as their jobs become more generalistic, and to gain in soft skills as they will be more and more in charge of complex customer-facing responsibilities. Furthermore, our survey shows that enterprises that invest in AI programs double the benefits both in terms of job creation vs. destruction balance and in terms of productivity gains. As a conseguence, enterprises need to invest and put in place a triple action plan on Al agents (agentic workflow platforms & automation), Data (knowledge management & exposure) and Transformation (processes & jobs). Finally, enterprises are responsible for their workforce competency evolution and for workers' critical thinking and striving for excellence as the major risk of this cognitive revolution is complacency in mediocrity.

> Vincent Luciani CEO & Co-founder



Florence Bénézit

Expert Partner Data & AI Governance



Methodology

This study is based on a mixed-methods approach, combining quantitative and qualitative analysis to provide a comprehensive view of the impact of artificial intelligence on work in France.

In collaboration with the polling institute **Odoxa**, we conducted a survey with a panel of **over 2,000 participants**. The sample was designed to be representative of the french working population in terms of sociodemographic criteria (age, gender, socio-professional category, industry) and included a specific subgroup of professionals who have fully integrated AI into their work processes. This survey allowed us to identify key trends, understand perceptions and usage of AI, and establish a robust quantitative framework for our analysis.

To complement this statistical approach, we conducted around **30 semi-structured interviews** with key players in digital transformation, including:

- CEOs, COOs, and Heads of Transformation, providing strategic insights on AI adoption and organizational change.
- CDOs (Chief Data Officers), Directors of Data Factories, and VP Digital Solutions, offering expertise on data-driven innovation and AI implementation.
- CHROs (Chief Human Resources Officers) and HR professionals, discussing workforce transformation, skill evolution, and Al's impact on HR practices.
- Heads of Customer Service, sharing perspectives on Al's role in enhancing customer interactions and operational efficiency.

These interviews were conducted with professionals from diverse organizations, including large CAC40 corporations, unicorns, and tech-driven companies, ensuring a broad range of perspectives and real-world use cases.

By combining quantitative insights with in-depth qualitative feedback, this study aims to provide a clear understanding of ongoing transformations and anticipate the challenges and opportunities AI presents in the workplace.

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- Traditional AI boosts productivity and stimulates growth through job creations.

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Introduction

14 Risks and Dangers of Artificial Intelligence (AI)

Al has been hailed as revolutionary and world-changing, but it's not without drawbacks.



Google CEO: A.I. is more important than fire or electricity

Catherine Clifford IN/CATCLIFFORD/





A NEW ERA

The Age of AI has begun

 $\label{eq:action} \mbox{Artificial intelligence is as revolutionary as mobile phones and the Internet.$

Builtin, July 2024: 14 Risks and Dangers of Artificial Intelligence (AI) - CNBC, Feb 2018: AI is more important than fire or electricity. - Bill Gates, Blog, March 2023: The Age of AI has begun.

Opinions on the impact of AI on work in the media are very contrasted. We can hear everything from "AI is the greatest disruption since electricity" all the way to "there is no AI return for enterprises". These opposite claims result from high-level and macro-economical analysis which are not sufficient to capture the early "AI & work" trends and understand where work is headed in an AI-augmented business world. We led this study with the conviction that understanding the value of AI for enterprises and its impact on work requires a detailed analysis of its value drivers, implementation patterns and human-AI collaboration mechanisms.

We started with issuing a large survey on 2000 persons, with a focus on 1000 Al users, then we ran 30 interviews with companies that develop or use Al to uncover those value drivers, implementation patterns and collaboration mechanisms. In the survey and interview questions, we were particularly interested in the benefits and risks of Al for both the worker and the enterprise. We quickly saw a clear distinction between Traditional AI that is mostly deployed at the benefit of the enterprise and Generative AI that shows a stunning adoption curve by individual workers with unmeasurable productivity gains for the enterprise.





Artificial intelligence (AI) Former OpenAI safety researcher brands pace of AI development 'terrifying'



We will start by analyzing the impact of Traditional AI on work as it is the AI with the most historical perspective, then, thanks to our extensive survey and interviews, we will show how AI assistants are transforming individual work. Finally we will describe the early trends we found in AI for expertise diffusion and workflow streamlining. We will show that this is where Generative AI will produce massive productivity gains, mostly relying on the emerging "agentic AI" developments.



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How artificial intelligence can revolutionise science

Consider the historical precedents

How the AI Revolution Will Reshape the World

0 MINOTE READ





The Guardian, Jan 2025: Former OpenAI safety researcher brands pace of AI development 'terrifying' - IMF Blog, Jan 2024: AI will transform the global economy. - The Economist, Sept 2023: How AI can revolutionise science - Time, Sept 2023: How the AI revolution will reshape the world.



Ι

Traditional AI augments humans on tasks that are out of their cognitive reach.

- 12 I.A Traditional AI transforms end-to-end processes thanks to more granular and accurate insights.
- 20 I.B Top-down governance and new profiles are required to deploy Traditional AI.
- 24 I.C Traditional AI boosts productivity and stimulates growth through job creations.



DEFINITION

What is the difference between Traditional AI and Generative AI?

Traditional AI outputs simple predictions such as numbers (e.g., predict a forecast, a score, optimal resource allocations) and classes (e.g., predict the presence of a risk, the type of an invoice). The power of Traditional AI comes from its ability to process large amounts of structured information to perform its prediction, where a human is not capable to process accurately such volumes of data.

Contrary to Traditional AI, Generative AI outputs complex predictions such as text, code, images or videos based on simple natural language prompts. Until recently, machines were not able to "generate" such complex content with such simple input. This capability was reserved for humans.

KEY FINDINGS

- → Traditional AI transforms end-to-end processes thanks to more frequent, granular & accurate insight.
- → Workers that were replaced by AI tend to move to centralized team and shift to AI supervision.
- → Employees working downstream from AI need to be upskilled to adapt to new processes and scale.
- → Overall, Traditional AI stimulates growth and creates more jobs than it destroys.



I.A Traditional AI transforms end-to-end processes thanks to more granular and accurate insights.

Replacing simple business rules with "Big Data & AI" models makes old processes obsolete.

In the last 30 years, large enterprises across the globe have been developing Traditional AI use cases to improve their performance. Traditional AI can crunch massive amounts of structured data, much more than humans can process, to help orient processes in several ways:

- It can perform forecasts with unprecedented accuracy, in contrast with humans, who can at best visually interpolate interpolate a graphical trend or compute a simple linear regression.
- It can classify cases at scale with parallelization and small error rate, where humans can only classify cases slowly and sequentially or build a simple classifying decision tree with a few parameters and manually written rules.
- It can optimize resource allocation with greater success than humans, by exploring many more options than a human could explore and assess.
- It can prioritize options with recommender systems with much higher velocity and accuracy than humans.

What is important to notice is that Traditional AI helps organize and optimise work by providing key upstream orientations. For example, forecasts allow humans to take strategic resource allocation decisions by anticipating future work and classification is essential to triage cases and manage forking steps in workflows. Before AI, processes were oriented either manually by humans or with business rules by machines.

When an enterprise decides to develop an AI application, it needs to set up automatic data collection, often from different sources, train models to solve its specific problem, and dedicate teams to AI application maintenance. Because building an AI application is costly, we only see enterprises use Traditional AI on business critical processes, with the expectation of making large process performance gains. Throughout interviews, respondents explained that such use-cases impact a small number of employees because only a few people were concerned with manual process orientation or because AI only replaced an already automated business rule. However, the employees that work for the process impacted by AI on tasks that are downstream from AI's decisions, see their work heavily transformed and need reskilling.



ODOXA

60[%]

of employees using AI report that their department has adapted its business processes.

ARTEFACT

I TRADITIONAL AI AUGMENTS HUMANS ON TASKS THAT ARE OUT OF THEIR COGNITIVE REACH.

To fully benefit from Traditional AI, processes need to be transformed with an impact on workers that operate downstream from AI.

For exemple, **Natixis** developed a recommendation engine that finds for each employee the next relevant training courses within their home-built training catalog. Before AI, HRs used to recommend courses at department level and would not have much time to talk to employees and to understand their training needs in detail. Now all employees get personalized training recommendations, and HR spend a lot more time talking to employees with very specific needs. HRs spend the same amount of time working on training recommendations but with a much higher service level.



CASE STUDY

Optimization of Training Through AI: The Example of Natixis.



Natixis, a subsidiary of the BPCE Group, specializes in corporate finance, investment banking and asset management. At Natixis, the HR teams oversee more than 12,000 employees worldwide and manage a catalog of 800 training programs. Identifying and recommending the most suitable training paths for each employee was a demanding task. The diversity of content and the large number of employees made this work particularly complex.

To address this challenge, Natixis deployed an AI solution. This solution helps employees identify their skills and generates personalized recommendations of jobs and training paths, better aligned with their needs and aspirations.

OBSERVED RESULTS

Revaluation of the Role of HR

HR teams have not reduced their working hours, but, as AI automates training suggestions, their focus has shifted to more qualitative tasks, such as individual interviews to go deeper into the motivation or feasibility of employees' career plans.

Gradual Adoption and Optimization

Initially cautious, HR gradually embraced the AI tool as it optimized the suggestion of training programs, demonstrating its relevance and efficiency.

Strategic Re-focusing

By automating analytical tasks, HR teams can now focus on higher-value activities, such as individualized career planning, enhancing their strategic role in the organization. This case illustrates how AI, as a complementary tool, can enhance teams by allowing them to refocus on strategic and relational activities, reinvesting the time saved in personalized service.

Al scales downstream processes and tends to centralize the upstream process orientation workforce around Al supervision.

As shown in this example, we observed more widely that the main reason for profound work transformation is that Traditional AI fuels downstream processes with information at new precision levels yielding high operational productivity gains. The sudden scale provided by AI changes the entire process paradigm. These changes of scale can occur at different levels:

- Geographical scale: when AI optimizes country-wide operations, local operational managers get centralized to supervise and improve the AI central orchestrator of operations (see the Transdev p.16)
- Employee scale: with HR use-cases such as CV prioritization, training recommendation engine and competency classification. HR professionals shift from ensuring the HR basics with generic rules to carefully handling specific and important cases. We did not find any HR staff reduction in our interviews, we did find that HR professionals that felt empowered by AI, enabling them to perform their roles more effectively.
- Client scale for Sales & Services: AI manages personalization at sacle buying propensity scores, Credit scoring, Media content recommendations, ...



With AI, we are achieving results that were previously unattainable, opening up new perspectives and pushing back the boundaries of what seemed possible."

"

Regis RAVALEC

Group Data Officer





EXAMPLE Transformation of the Marketing Campaign Process.

Traditional AI deeply changed marketing thanks to granular client insight at scale. For example, marketing scores such as churn scores changed the way marketing works, especially in recurring revenue businesses. AI can summarize dozens of churn signals in one single churn score on which marketers trigger anti-churn campaigns on clients that seem hesitant to keep their subscriptions. Before churn scoring, such campaigns were hazardous and could be counterproductive as one could call a client who never thought of churning and instill doubt. Generally, marketing is a field that is rethinking its campaign strategy from campaign-centricity (when should I schedule my 20 campaigns, and for which 20 audiences?) towards client-centricity at scale (for each of my 3 million customers, what should I promote, with which messages, at which frequency, when?). The new bottleneck of marketing is its capacity to personalize content at scale and it is being overcome thanks to Generative AI, which, when combined with Traditional AI, is expected to accelerate marketing transformation.

STUDY CASE

Augmented Marketing Targeting: Orange's Perso Reco Case.

Orange, a European leader in telecommunications, invests in innovative solutions to enhance customer experience and boost team efficiency. Among these initiatives, the Perso Reco tool revolutionizes marketing targeting by shifting from an offer eligibility model to one based on customer propensity, leveraging AI to personalize recommendations.

With Perso Reco, Orange aims to refocus its marketing strategy on the customer. The tool delivers personalized recommendations across three channels:

- Direct Marketing: Tailored SMS and emails for each customer.
- Digital Marketing: Targeted ads on digital platforms.
- In-Store Recommendations: Customized posters, screens, and promotions.

Each customer is presented with the two offers deemed most relevant to them, based on scores generated by the AI engine "NBOA." This approach breaks away from the traditional "eligibility-based" targeting by adopting "propensity-based" targeting, which relies on objective customer data.

The operation of Perso Reco is fully integrated into the daily routines of Orange's 80 marketers. While they share common scores, they tailor their actions to the specific needs of each channel, fostering collaboration across direct, digital, and in-store marketing. Team members also contribute to the continuous improvement of the tool through quarterly meetings.

OBSERVED RESULTS ON WORK

orange[™]

For Marketers:

Time Savings: Automation of prioritization enables better allocation of efforts to tasks specific to each channel.

Skill Development: Training on the tool has enhanced their mastery of AI solutions and their ability to integrate them into daily tasks.

Enhanced Objectivity: Using data-driven scores eliminates human biases, ensuring recommendations are based solely on reliable data.

Breaking silos: Ensuring that employees share common objectives across channels and products.

For the Company:

Result Consistency: Performance scores are standardized across teams, enabling precise measurement of marketing effectiveness.

Continuous AI Improvement: Interactions between human experience and AI mutually enrich the system. For example, commercial priorities can be integrated into the engine to generate pushes aligned with strategic objectives.

Perso Reco demonstrates how artificial intelligence can transform marketing practices by boosting team efficiency while enhancing offer personalization.

ARTEFACT

STUDY CASE

Optimization of transport networks.



OBSERVED RESULTS

Service Optimization and Cost Reduction:

AI helps reduce energy consumption and asset usage.

Strengthened Organization:

AI has facilitated the collaboration of multiple business expertise within the organization, allowing better coordination among teams. Decisions are now more consistent and aligned with strategic priorities, thus enhancing the group's competitiveness.

Transdev, a French multinational specializing in public transport services, operates complex networks in over 18 countries worldwide. In line with its climate strategy objectives to reduce its carbon footprint, Transdev became a leader in operating large zero emission bus fleets. Since battery electric buses bring new operating challenges, Transdev needed to reinvent the way of designing its transport networks and its operating model.

To address these challenges, Transdev has developed a set of AI-based solution focused on optimization under constraints, capable of adjusting bus assignments and service organization in real time. This solution uses operational research models that incorporate a wide range of variables, including schedules, routes, energy costs, assets sizing and real time status, driving patterns, and even external data such as the weather or the traffic. By analyzing real-time data, it dynamically optimizes how the bus is operated. The control center can also act pro-actively to forecast energy disruption instead of managing operating incident in service.

Al can also drastically improve process performance thanks to remarkable input information accuracy.

The second reason for work transformation is the unprecedented accuracy of AI compared to humans. In transformations by accuracy cases, AI computes input operational process parameters with a much higher accuracy than humans. Gains in parameter accuracy directly translate into high performance gains for the process and the enterprise. While scaling AI cases accelerate tasks beyond human capabilities and disrupt processes by sudden scale potential, accuracy cases transform processes by providing novel insight redirecting processes in new directions. A typical example is medical diagnosis Al assistants that can change a doctor's diagnostics and prescription.

Very often, like in the doctor example, humans were already trying to produce the key piece of information for the process. In the common case where humans were spread across geographies to make estimations and take decisions, accuracy gains can lead to process geographical centralization: instead of having local employees perform the assessment & decision task, a central team takes over Data & Al supervision.



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Only AI can analyze a system in all its complexity, taking into account a multitude of variables. It thus offers a unique, global vision to guide strategic decisions."

The most emblematic accuracy case is AI for demand forecast to anticipate and optimize supply chain resources. The slightest gain in forecast accuracy immensely improves the entire supply chain process performance by avoiding costly out-of-stock or over-production situations. In this case, people who used to perform manual forecasts on Excel are now responsible for managing the Al algorithm, and more specifically its inputs. Forecast accuracy massively impacts many downstream supply chain activities, from the high-level S&OP process all the way down to granular purchasing volume decisions. The higher up Al is positioned within a process, the greater its potential impact.



STUDY CASE

Optimizing Inventory Management with AI: The Case of Adeo.



ADEO, leader in Europe and 3rd largest global player in home improvement and DIY, with over 110,000 employees and iconic brands like Leroy Merlin, Bricoman, Weldom or Saint Maclou, faces significant challenges in managing inventory across thousands of product references and a network of more than 1,000 points of sale across 21 countries. Effective stock management is crucial for balancing customer satisfaction with logistics cost optimization.

Previously, inventory management relied on traditional tools like Excel, using approximate data to estimate sales and adjust orders. This often led to costly overstocking or stockouts. ADEO revolutionized its approach with an AI-powered forecasting solution. The system analyzes a wide range of variables, including historical sales data, local trends, weather conditions, and store specific characteristics. These insights enable precise predictions of required inventory volumes, even for new products.

Store managers now receive tailored recommendations, such as "Order X units of this product." While human validation is currently required, the system's consistent accuracy could pave the way for full automation in the future.

OBSERVED RESULTS

Improved Forecast Accuracy: Enhanced sales anticipation minimizes overstocking and stockouts.

Operational Efficiency: Managers save time and make better-informed decisions.

International Deployment: Successful implementation in France and Spain, with promising results for other markets.

This use case demonstrates AI's potential to transform complex logistical challenges into drivers of performance and customer satisfaction, fostering more agile and optimized inventory management in a rapidly evolving sector.

Another classical accuracy transformation case is machine calibration for manufacturing process optimization. Machine calibration can depend on many parameters such as product to be manufactured, humidity and temperature, but also energy price, raw material characteristics, production volume, etc. Predicting optimal manufacturing calibration has several benefits:

- It saves calibration time (and the energy and material spent during calibration).
- It saves energy and raw material consumption during the subsequent manufacturing time.
- It improves production quality and reduces scraps and claims.

Traditionally machine calibration is a manual & iterative process and, when powered with AI and real-time manufacturing data collection, the process performance improves and may also radically change. We have encountered two different approaches to include AI in the calibration process:

- Assisted calibration, where the operator gets recommendations for calibration and continues to perform his/her task in a more efficient way.
- Automated calibration, where the operator does not calibrate the machine anymore and his activity shifts to production supervision. In some cases, the operator is moved to maintenance tasks.

The key factor to jump from assisted to automated calibration is AI trust. Complex and relatively unstable manufacturing processes will tend to be assisted, while more stable processes can be automated, as in the Veolia case. Very simple processes are usually handled by deterministic robots following manually written business rules without AI.



STUDY CASE

Optimizing Energy Use with AI: The Case of Veolia.



Veolia, a global leader in water, waste, and energy management, faces increasing challenges in reducing energy costs and optimizing performance at its wastewater treatment plants. The challenge lies in balancing treatment quality with energy consumption—a task traditionally handled by experts relying on their experience to fine-tune parameters.

Today, Veolia has deployed an AI solution across more than 300 sites, in France, to optimize energy expenditure. This model dynamically adjusts aeration durations based on incoming water quality, ensuring optimal output while minimizing energy use. The AI continuously analyzes data from the plants and provides real-time instructions, replacing experience-based manual adjustments with precise recommendations.

OBSERVED RESULTS IN OPERATIONS

Enhanced Efficiency: The solution has achieved an overall 13% reduction in energy costs for relevant operations, though results vary by site. Each station is treated as a unique model that improves continuously through AI learning.

Shift in Roles: Operators, previously focused on manual control, now dedicate their time to maintenance and supervision, while the AI manages real-time adjustments.

High Adoption Rates: Designed to be "useful, usable, and used," the system has garnered strong satisfaction among employees. This success stems from early educational efforts that built trust in the AI among operational teams.

By integrating AI into its processes, Veolia is transforming wastewater management, achieving operational excellence while advancing its energy transition goals.

In general, any AI that prevents failure (e.g., predictive maintenance, predictive health, churn scoring, fraud detection) completely changes the jobs of workers who are used to reactive problem solving. For example, before predictive maintenance, maintenance workers used to fix problems (and be heroes!), now they work on systems before they break (to avoid disrupting others' work). They know how to prioritize emergencies, now they also have to plan their preventive activities.

Finally, it is worth mentioning that Digital Applications often rely on AI to function: email inboxes can spot important emails and spam, autocompletion can help fill in a form, payment applications can detect fraud and block transactions, e-commerce websites personalize product displays based on a client's browsing history. In these cases, AI is directly embedded in the digital product to offer relevant services at scale by computing key functionality input parameters.





I.B Top-down governance and new profiles are required to deploy Traditional AI.

Traditional AI requires costly technical competencies for each use case.

Traditional AI requires an entire chain of technical roles to function:

- Machine learning researchers to invent the models (~100-200 thousand people)
- Data engineers to collect the data (~2-4 million people)
- Data labelling people to steer learning. These repetitive tasks are often externalized (~1 million people)
- Data Scientists to train the models (~1 million people)
- Machine learning operations engineers to ensure smooth model operations and integration (~300-500 thousand people, growing)
- Designers to design the AI application and user experience (~ 500 thousand to 1 million people, growing)

 Software engineers to build and run applications (~50 million people)

According to a CBRE report¹, 40% of the American tech talent works for the tech industry, leaving a large portion of 60% of the tech talent employed in other non-tech industries, showing the pervasive role of technology in the economy.

More and more of these tech talents are Al-related. 2/3 of surveyed Al-users at work tell that their company acquired new Al-related competencies with training, recruitment or external partnerships. Hiring external talent remains the largest lever for Al competency acquisition as our survey shows that half of the workers using Al claim that their company had to create new jobs to get Al to work, and that a majority of the hired profiles are technical.

Those profiles are needed because building in-house Traditional AI requires complex and lengthy developments. This need for large initial investments and talent might explain why AI is more commonly used in large enterprises (38%) than in small ones (27%).

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The adoption of AI is greater in large companies due to high entry costs. AI usage rates are:

38%



for large companies

for mid-sized companies

27[%] for small businesses

¹: CBRE, Scoring Tech Talent 2024



ODOXA

Two-thirds of employees using AI state that their company has acquired new skills, whether through internal training, recruitment, or external partnerships.

Has your company acquired new skills as a result of using AI? (Multiple answers possible)



Non-technical roles are essential to rethink processes, drive adoption and supervise AI.

Traditional AI requires more than tech roles. Engineering and Development in tech companies usually represent less than half of the workforce. In particular, to sell and serve their AI-driven digital products, these companies hire sales, marketing and customer support & success teams. In high-growth tech companies, this customer-facing workforce can be as large as the tech team.

In non-tech companies building their own Traditional AI models and applications, the equivalent of "sales, marketing & support" manpower is taken by other non-tech roles:

- AI Product Owner to collect the business need, frame the new AI application and drive AI supervision
- Business Analysts to quantify and anticipate Al impact

- Process Owners to design and deploy Al-transformed Processes.
- Al Change Management and Transformation roles to steer large-scale transformations.
- Al Product Support to answer Al user questions.

Interviews and our experience at clients show that these roles are very often sourced internally, among field experts and existing support teams. Note that the lack of business commitment on a Traditional AI application is the number one reason for AI project failure, as the required process transformation at scale or with unprecedented accuracy cannot succeed without these business experts.



The adoption of new technologies and the evolution of professions require a cultural transformation at all levels of the organization. Beyond this cultural shift, it is also a fundamental change in the mindset of leaders and managers, who must integrate AI not just as a tool, but as a new form of virtual collaborator and a key enabler of productivity and innovation."

Has the proper functioning of AI in your company required the creation of new positions?





ODOXA



of employees report that new positions had to be created to ensure the proper functioning of AI, mostly for technical profiles.

Because of its high costs, Traditional AI is always governed in a top-down fashioned.

Large development and run costs combined with complex process transformation needs explain why Traditional AI is always governed in a top-down fashion:

- Traditional AI budgets are large and held by top sponsors
- Tech resources are mutualized in "AI factories"
- Only a top-down approach can succeed for profound business process changes (it's more than just a small task change!)

Many interviewees shared that they believe that their companies still have a long "Traditional AI" journey ahead, and wonder if the new wave of "Generative AI" will accelerate or slow down the transformation. As we will see in the next sections, the "Generative AI" transformation is fundamentally different from the "Traditional AI" transformation, and learning how to combine both is going to be key.





Nicolas Marescaux

Deputy Director of Member Needs Responses and Innovation



AI transcends silos, transforming the organisation into a true collective endeavour. Its success depends on a shared vision, shaped by a transverse alliance of participants. Leadership provides the direction, but it is through solidarity and collaboration that we move forward as one."

I.C Traditional AI boosts productivity and stimulates growth through job creations.

Traditional AI amplified the job creations generated by digital productivity gains.

Interviewees reported making most of their AI gains on Traditional AI (vs. Generative AI) today, not only because Generative AI is much more recent, but also because their Traditional AI use case backlog is still filled up for the years to come.

To better grasp the impact of AI on company performance and on the workforce, we analyzed all the use-cases we collected during the study and we realized that we needed to decouple AI's impact from the Digital revolution's impact. Digitalization of the world automated many simple tasks such as data collection and transaction management with simple deterministic business rules and logic.

While digitalization was automating tasks, replacing some jobs like secretaries, it was also generating productivity gains and collecting the data that fuels AI, which creates additional jobs. Because of high process performance gains, companies benefit from AI with growth and hire to sustain that growth. The adoption of Traditional AI by companies is quite high, as an OCDE EU-wide survey¹ suggests that 42% of companies were using at least one AI technology in 2020. The French AI commission benchmarked the headcount evolution of 1218 companies without AI before 2018 among which 321 adopted AI between 2018 and 2020. Both company groups followed similar headcount trends until 2019 when AI adopting companies started hiring more than non-adopters (~ +5% in 2021).

For example, Digital Marketing grew with e-commerce and social media, replacing traditional paper & media marketing, but requiring AI for A/B testing, scoring, customer segmentation and predictive analytics. Overall, there were more Digital Marketing job creations than traditional marketing job destructions. Similarly, e-commerce created the need for AI recommender systems. E-commerce massively impacted brick-and-mortar store jobs, but created many new jobs in supply chain & logistics, also creating Data & AI jobs.



¹: European enterprise survey onthe use of technologies based on AI, 2020



Unless AI is fed to an automation machine, Traditional AI only replaces tedious manual computation tasks and greatly improves process performance.

The digitalization journey also opened new AI opportunities by automating the collection of data needed by AI to compute novel or more accurate pieces of information. AI only impacted the people who used to manually estimate these strategic pieces of information. In our interviews, we observed three levels of disruption:

- Global optimization AI yields massive performance gains and worker centralization to supervise the AI application (example uses-cases are demand forecasting, optimal energy mix and optimal route computation cases). Workers who shift to AI supervision have new tasks such as monitoring correct data provision and validating AI model and relevance.
- Smart local information for the worker requiring local process re-design and worker re-skilling to learn how to use this new piece of information. With this type of AI, a worker keeps their job but changes the way they make decisions, organize their activities, or may even take on new tasks suggested by AI. Example use-cases are numerous: machine calibration, churn scoring, predictive maintenance, fraud detection, security alarms, automatic quality feedback, medical diagnostic score, product scoring for sales pitches, driving route recommendation... Most of the use-cases we collected fall into this category with varying levels of worker productivity gains.

- Local new information for a machine, to automate a simple repetitive task, with high productivity gains, especially for:
 - **Back-office clerk tasks**, such as automatic invoice processing (OCR, classification, RPA) or CV screening. Productivity gains can be very high: see Alan's use case on Page 50, where a 20% productivity gain was reached thanks to the processing automation of millions of invoices.
 - Field operators whose physically strenuous tasks are taken over by robots, can then focus on more secure and valuable tasks.

In all our interviews, we were told that jobs were not destroyed with Traditional AI automation and that people were reoriented towards more interesting and valuable tasks. Overall, automation increased workers' well-being. However, interviewees do say that AI prevented hires and productivity gains were absorbed by company growth. So the workforce is preserved as long as AI's impact grows at the same rhythm as the company's performance. Traditional AI is very powerful but only works on well-defined problems that can be modeled as a forecast, a classification, a sort or a resource allocation problem. Most workers do much more than just forecast, triage or select pre-defined options. As we will see in Section 3, this type of automation is expected to considerably accelerate with the advent of Generative AI agents, possibly breaking this equilibrium.



Automation redefines roles rather than eliminating jobs, encouraging skills transfers and the emergence of new ways of working aligned with technological developments aligned with technological developments."

Christine Gasparini

Director of Data & Integration Service Center

Laurent Verhoest

Group Chief Data & Technology Officer

STUDY CASE

AI solution of visual recognition at the service of Orange France technical intervention quality.



Orange, one of Europe's leading telecommunications providers, plays a key role in the deployment of fiber optic networks. However, ensuring the quality of installations poses a significant challenge, particularly when connecting customers to public cabinets. This process, often carried out by external technicians, has led to frequent malfunctions and a surge in complaints.

During fiber installation, technicians connect households to public cabinets shared by multiple operators (Orange, SFR, Free, etc.). These cabinets are often left in disarray (poorly organized or improperly connected cables), resulting in:

- Customer complaints about service interruptions.
- Complaints from operators about technicians, who are often difficult to identify, especially when working for competing providers.

Before the introduction of AI, operators relied on written reports, which were often incomplete or imprecise, to track interventions. This time-consuming and inefficient process complicated problem resolution. In response to these challenges, ARCEP mandated that photos of cabinets be taken after every intervention.

To comply with this requirement and enhance installation quality, Orange deployed a computer vision AI solution.

The technology is based on an image analysis system powered by AI. After each intervention, the technician

takes a photo of the cabinet, and the algorithm verifies the conformity of the installation. The results enable the immediate detection of potential anomalies and create a clear, actionable historical record. In addition, the rollout of this solution was accompanied by upskilling efforts, with training provided on the tool's use and its operational benefits.

OBSERVED RESULTS ON WORK

For Technicians:

- Improved intervention quality thanks to immediate feedback on compliance.
- Reduced corrective trips, freeing up time for other technical tasks.
- Simplified traceability and better cabinet organization, enhancing their daily efficiency.

For the Company:

- Increased intervention compliance rate, from 30% to nearly 80%.
- Annual savings of €3 million due to fewer corrective interventions.
- Improved customer satisfaction, strengthening Orange's reputation for reliability and innovation.

This initiative demonstrates how AI, by integrating targeted processes, can transform operational practices and enhance both service quality and organizational efficiency.



suez



Matthieu Grymonprez Global CIO/CDO



AI is redefining roles without causing a massive disruption in employment. For example, the automation of checkouts transforms the mission of cashiers: less versatile, they focus more on customer advice, while logistics are optimized by AI. It's a human-oriented reinvention of professions."

STUDY CASE

AI-Powered Waste Sorting: Driving Performance Beyond Time Savings.

SUEZ, a global leader in water and waste management, is innovating to address challenges in recycling material recovery.

Historically, waste sorting relied on manual and sporadic sampling, limiting the precision of analyses and optimal material recovery. These materials, such as cardboard, plastic, or metal, can be sold for industrial use or directed to appropriate recycling channels.

To enhance its performance, SUEZ deployed an AIbased computer vision technology. Integrated directly into sorting centers and incinerators, this solution continuously analyzes images of waste. It assesses the quality of the sorted waste, and optimizes the efficiency of the waste management plant, whether for economic purposes (reselling pure materials) or environmental benefits (recycling or energy recovery). Better material purity at the end of the sorting plant is the guarantee of a more virtuous recycling chain.

IMPACTS AND RESULTS ON WORK

Increased Precision and Speed: Where manual sampling limited precision and was time-consuming, continuous AI analysis enables faster, more reliable sorting, maximizing the purity of recoverable materials.

Economic and Environmental Performance: Waste flows are better optimized, generating significant financial gains through high-quality materials while increasing recycling rates and minimizing environmental impact.

Reduced Interruptions and Costs: Early detection of unwanted elements prevents blockages in incinerators, reducing costly disruptions and improving operational continuity.

By adopting this technology, SUEZ is transforming waste sorting into a key lever for combining economic performance with environmental sustainability.

Π

Generative AI assistants democratize expertise and fuel career mobility.

- 30 II.A Spontaneous Generative AI assistants are unstoppable.
- 35 II.B Usage sporadicity and versatility dilute the value of individual productivity gains.
- 40 II.C The rise of Generalists enables workforce flexibility.
- 42 II.D The need for experts will prevail to feed and monitor trusted AI.



Generative AI, along with the release of assistant bots such as ChatGPT and Microsoft Copilot, introduces a radically different type of AI. Unlike Traditional AI, which requires large structured data and is trained for structured outputs and precise process-orientation tasks (e.g., forecast and classification), these assistants take textual prompts and other unstructured data (such as images, PDFs, videos) as inputs and also output unstructured data. Generative AI models, known as "foundational models", are "one-size-fits-all" and "out-of-the-box", trained for massive multi-tasking.

The first consequence is drastic usage simplification: anyone can ask a question to a Generative AI assistant through a prompt. The need for technical AI teams vanishes and the entry cost barrier to Traditional AI disappears. Unlike software code or Traditional AI, the "interpretation" and "coding" efforts of Generative AI have been placed on the machine side, promoting its democratization. While Traditional AI adoption was a top-down journey, Generative AI's journey is clearly starting at the individual level, in a bottom-up fashion.

KEY FINDINGS

- → AI adoption at work is spontaneous and workers save 57 minutes per day, but enterprise productivity gains remain limited due to yet partial adoption and scattered efficiency gains.
- → 92% of users are satisfied with AI and workers use universal Generative AI assistants to save time, work better and gain cognitive comfort.
- → AI fosters collaboration rather than isolation as 33% of workers reuse free time to exchange more with their colleagues.
- → Managers adopt AI faster and have a more extensive usage than operational workers.
- → For AI to truly transform organizations and impact operations, it must become more reliable and better connected to enterprise knowledge.
- → Thanks to enterprise AI assistants, workforce flexibility will increase as workers become augmented generalists.
- → Support teams will become more productive thanks to AI assistant automation and simple support cases will be increasingly automated.
- → Experts will shift from direct expertise support to enterprise AI assistant maintenance and supervision.



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II.A Spontaneous Generative AI assistants are unstoppable.

92% of early adopters are satisfied with AI.

According to our survey 84% of AI users at work find their work more pleasant, and 83% find it simpler. Moreover, 83% claim using AI at least once a week. This is such a high level of satisfaction and frequency usage that we can solidly affirm that daily individual usage of Generative AI assistance is unstoppable. Al satisfaction rates (for both Traditional and Generative Al) vary across different enterprise departments. Currently, they are highest in strategy, human resources, R&D and engineering, and IT departments, and lowest in production and quality, client services, and finance showing where Al needs to progress.





France is in the early adoption phase of AI.



ARTEFACT



AI Satisfaction distribution by Enterprise Department.

Very often, when AI tools are made available to operational teams, we observe that the enthusiasm for the benefits they bring far outweighs initial concerns and positively transforms everyday work life."

suez

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II GENERATIVE AI ASSISTANTS DEMOCRATIZE EXPERTISE AND FUEL CAREER MOBILITY.

83% of employees who use Al engage with it at least weekly. How often do you work with Al?





ODOXA

We measured an individual AI usage at work adoption rate of 12% today in France. Our survey indicates that there are very few roadblockers and little resistance for the 88% other workers to adopt AI, which should spread fast. Amongst the non AI users,

- only 9% declare that their company forbids AI usage
- only 17% are against AI "by principle"

only 10% believe that AI would be detrimental to their productivity or performance

Moreover, enterprises are setting up tools to foster individual AI assistance: 17% of workers claim that AI adoption is imminent in their company. In total, 47% of workers claim that AI is already used or will be very soon in their company. In other countries like India and China, AI adoption is ahead of Europe,, confirming that it is a matter of months before AI usage at work diffuses to a large majority of workers.



Al users' main motivations are to work faster and better.

ODOXA

58[%]

declare using AI to gain time

84%

choose to use AI to add value to their work, whether by extra quality or creativity



Why do you use AI ?

A strong adoption driver is the capability of Generative AI to improve both productivity and work quality.

From our interviews with AI, either deploying Generative AI assistants in their companies or observing spontaneous adoption, we found that the most memorable use-cases stem from newfound ability to perform tasks they previously could not. The survey shows that 25% of AI users at work cite the ability to accomplish things they were not capable of doing before amongst their motivations. For

example, an interviewee shared with us the case of an HR lead who discovered she could code VBA macros thanks to AI and started automating her own Excel tasks.

The individual AI adoption landscape is shaped by how well the technology aligns with each worker's tasks and is quite independent of the worker's company sector. While on average **12% of workers use AI**, we spotted a few outliers with high adoption rates:

II GENERATIVE AI ASSISTANTS DEMOCRATIZE EXPERTISE AND FUEL CAREER MOBILITY.

- 41% in IT & tech: AI assistance for writing code is readily available (e.g., GitHub Copilot)
- 29% of the 18-24 year-old / 20% of the 25-34 yearold workers: their tasks are simpler and more prone to assistance efficiency.

% Use or are directly impacted by AI (average: 12%) And which employees use it the most ?

- 22% of Managers: Al assistance to summarize meetings & online information, suggest plans.
- 18% in Sales: Al assistance to summarize sales meeting & fill in the CRM is a huge time-saver and helps capture more exhaustive information.



We also found some populations under-using AI:

- 8% of field operators, likely due to the lower level of digitalization in their work
- 5% of 50-64 year-old workers: their working habits may be more installed and they are such experts that they do not need as much assistance.

Use of AI by employee age



II.B Usage sporadicity and versatility dilute the value of individual productivity gains.

We took interest in both productivity and quality gains with AI because they both impact the workforce:

- Quality gains create market differentiators, stimulating growth, thus recruitments
- Productivity gains, while they can reduce the workforce in the short-term, also stimulate growth and jobs in the long-term.

All the companies we interviewed claimed slow and regular productivity gains with AI, with revenue growth absorbing productivity gains and preventing layoffs.

A key question that was discussed in interviews was whether the rapid adoption of AI by individual workers could lead to a sudden acceleration of productivity gains, potentially threatening the workforce.

It will be complex to measure precisely the accounting impact on productivity that an AI assistant such as Copilot can bring, but one thing is certain: it will become an unavoidable tool, essential to our business"

"

Yann Legars Engineering & Product Innovation



Al users save an average of 57 minutes per day.

Our survey shows that individual AI users report saving an average of 57 minutes per day. The top 4% of AI users save more than 3 hours. Clearly, workers do not automate themselves out. While the individual productivity gains are very appreciated by each worker, they do not result in complete idleness, as many hours of work still remain. Although individual productivity gains are indisputable, the companies we interviewed stated that they have not measured any macroscopic change in overall productivity.

Interestingly, companies do not even try to measure the productivity impact of spontaneous AI usage. Some interviewees said it's like measuring the impact of cell phones on productivity: it's impossible, but everyone recognizes the value of having a cell phone at work. Others compared AI assistance bots to Excel. It is widely used, but no one lost his job over individual usage of cell phones or Excel spreadsheets.



ARTEFACT

Individual time-savings do not add up into enterprise productivity gains because usage is scattered.

The commonality between AI assistant bots, cell phones and Excel spreadsheets is their usage versatility. Unlike Traditional AI, AI assistants are used to tackle a variety of tasks, including non-critical tasks. Use-cases are so diverse and worker-dependent the value of AI assistant bots is difficult to quantify. Among AI users, we measured a variety of spontaneous AI uses:

Among AI users, we measured a variety of spontaneous AI uses such as information search and synthesis, content creation, and coding.



56% of AI users tackle more tasks with saved time and gain productivity.

Although more recent, Generative Al is more used by individuals than Traditional Al. We asked Al users at work how they spend the time saved by Al, whatever the type of Al. Only 21% have shortened their time at work. Otherwise, this is what we found in terms of time reinvestment:

34% perform tasks that did not exist before AI:

- these are Traditional AI users whose processes have changed with AI
- or Generative AI users who use their new AI empowerment and change their own ways of working. More generally, our survey shows that 75% of AI users feel more empowered freedom to take action.
33% use freed-up time to exchange with colleagues:

- Seniors tend to reinvest more time in exchanging with colleagues (38%) compared to juniors (29%), probably because their network is wider and because they hold more managerial jobs that require more lobbying.
- More generally, we found that 58% of AI users find their work more collaborative than before.
- Only 22% feel more isolated, probably because of their increased autonomy in task realization.

30% just perform a larger number of tasks of their preexisting work:

- In this case, AI users can become overachievers and productivity champions.
- If many people have similar job descriptions and all use AI, companies should eventually measure global productivity gains.
- The workforce impact of such productivity gains

was often raised in interviews for software developers, even though we have not crossed any software developer layoff example yet. As we will see in Section III, software developers will probably see a huge work increase in the Agentic revolution, but the question remains valid in the future, after the Al transition is over.

 In the interviews, we found surprising decisions and behaviors by fear of excessive productivity gains and layoffs: Al prohibition by managers to preserve the workforce, clandestine Al usage and hidden time-savings

25% spend more time on training and competency acquisition:

— This high number can be explained by the new training opportunities offered by AI, by the acute conscience of a skill shift imperative after experimenting with AI, and by the fact that productivity and performance gains increase significantly with AI prompting skills. Also today's AI users are early adopters and they are by nature a curious, self-learning population.



Main uses of time saved: new tasks and interactions with colleagues.

AI has increased communication within the company.



Al adoption among managers is more advanced, indirectly benefiting the enterprise in the longer run.

Managers particularly benefit from this cognitive revolution. Their adoption rate is much higher (28% of managers versus 9% of non-managers) and they have a more extensive usage of AI's cognitive assistance possibilities. 50% use it for synthesis and information structuring (versus 28% of non-managers), 45% use it to look for information (versus 28% of non-managers), 41% to produce written or oral communications (versus 29% of non-managers), and 38% to be more creative (versus 22% of non-managers). This is expected as management roles are cognitive intensive. 68% of managers that are AI users adopt AI to save time versus 55% of non-managers.

They value time-savings more, but they declare the same time-savings as others, i.e., 58 minutes per day. This can likely be explained by the diversity of managerial tasks, which results in a smaller potential for total productivity gains; many of their tasks cannot be assisted with AI in contrast with operational work performing more standardized tasks. Managers boost their individual productivity as 60% of them reuse at least part of their saved time to take on more tasks. As far as other time reuse is concerned, only 20% of managers declare having reduced their time at work for a better work-life balance, 28% use it for self-learning / training, and most importantly, 34% collaborate more with their colleagues.

We believe that improved management will eventually benefit the enterprise, especially thanks to the time freed-up for process transformation and change management. To achieve collective productivity gains, managers should be mindful of information overload and avoid increasing the Managers particularly benefit from this cognitive revolution. Their adoption rate is much higher (28% of managers versus 9% of nonmanagers) and they have a more extensive usage of AI's cognitive assistance possibilities.

volume and length of produced contents, as this can negatively impact productivity of their readers. Furthermore, they should keep in mind that their colleagues use the same tools, generating the same "creative" ideas, and that there still is a need for human brainstorming and creativity to ensure a diversity of ideas and collective benefits. The poorer adoption by operational people (8%) also contributes to explaining the paradox between fast Generative Al adoption at work and the lack of tangible enterprise productivity gains.



II GENERATIVE AI ASSISTANTS DEMOCRATIZE EXPERTISE AND FUEL CAREER MOBILITY.

Managers are more frequent AI users.





II.C The rise of Generalists enables workforce flexibility.

Improving knowledge assistant reliability is necessary to transform work in a sustainable way.

As we saw earlier, 33% of Al users at work use Al to search for information. Contrary to other assistance usages such as text writing, synthesis or feedback collection where the user directly inputs information in the prompt, knowledge assistants rely on back-end knowledge to work correctly. The foundation models behind LLMs are trained on large text corpora from the internet and return this information in a statistical non-deterministic way, making them unreliable. Furthermore they are not trained on internal company information, which they will definitely certainly lack. To be widely adopted and impactful, and to truly transform work, workers need their knowledge assistants to be trustful sources.

To overcome this critical information reliability issue, general assistants such as ChatGPT and Microsoft Copilot for Web now connect to the internet and cite their sources. Similarly, we have witnessed that many companies in 2024 began developing their own knowledge assistants leveraging their internal knowledge base, and we expect to see even more such initiatives in 2025. Some other companies, like Google, are training specialized LLMs, e.g., for Health, to embed sophisticated knowledge for field-specific use-cases.

Reliable knowledge assistants create a flexible workforce and simplify work reorganization.

Our survey shows that 69% of Al users consider that they have a better access to knowledge at work (this rate captures all types of Al usage so we expect a higher rate if we filter on Generative Al usage only). This percentage jumps up to 78% in the IT department and to 86% among the juniors (18-24 year-olds).

The impact of knowledge assistants and improved knowledge access on users is sudden worker versatility. Workers are becoming generalists, which gives great agility to human resources and flexibility in workforce planning. For example, sales bots with extensive product knowledge empower the salesforce to sell any product to their clients, and relevantly advise them. Customer-centric transformations of sales organizations (with the salesforce organized To be widely adopted and impactful, and to truly transform work, workers need their knowledge assistants to be trustful sources.

by client segment and geography rather than by product segment) will be accelerated, thanks to the removal of the constraintful need for product-expert salesmen.

Thanks to enterprise knowledge assistants, workers can find information much faster, improving both productivity and efficiency. With easier to find information, workers are fed more information than before, become more knowledgeable, understand context better, thus perform their tasks better. Security and compliance knowledge assistants will be game-changers: when facing a new situation, workers can simply prompt their situation and ask for the best security or compliance advice. Security and compliance assistants will be particularly useful to new joiners, accelerate their company integration and save onboarding time to their managers.

At times where there is a fear for a collapse of the talent stack (demographics, education, AI cognitive risk...), highskilled knowledge assistants could be a solution to upskill the workforce and continuously grow talents.



Solving the paradox: for enterprise-level gains, AI needs to earn collective trust.

Thanks to knowledge assistants, not only individual workers become more productive but the workforce is more flexible in taking on new tasks. This flexibility will help HR departments reshuffle tasks and reorganize work so that individual productivity gains add up into measurable enterprise productivity gains. Today, the lack of trustful Generative assistants connected to curated enterprise knowledge, is one of the major reasons behind the paradox. Another factor is insufficient adoption coverage. While individual Al adopters at work experience proven, yet unreliable productivity gains, these cannot be converted into enterprise wide productivity gains with process transformations and work reorganization until the broader workforce is reliably augmented and made more flexible.

CASE STUDY

Generative AI for Ardian: Ardian Optimizes Information Retrieval with Generative AI.

Ardian, a world-leading private investment house, managing or advising \$176bn of assets across various activities and geographical areas. In this complex and highly competitive environment, the ability to quickly access large volumes of both structured and unstructured data and extract meaningful insights represents a critical competitive edge.

GAIA seamlessly integrates into two types of tasks, tailored to two distinct profiles. For juniors, it streamlines document research and analysis of extensive datasets for analytical purposes. For seniors, GAIA provides instant access to strategic insights, enabling rapid and indepth understanding of complex topics and supporting informed decision-making.

Fully integrated into Ardian's management processes, GAIA strictly adheres to compliance and security requirements. Since its global rollout a few weeks ago, the solution has already gained over 400 active users, ARDIAN

demonstrating rapid adoption and an agile response to the group's operational needs.

OBSERVED IMPACTS

GAIA enables intensive research across vast amounts of unstructured information using generative AI, a capability previously unattainable.

It accelerates information processing while improving the quality of analyses and reports produced.

Simplified access to previously scattered or difficult-to-exploit data promotes more informed and precise decision-making.

Initial user feedback highlights the solution's efficiency, with a promising employee NPS, even as usage patterns are being structured.

With GAIA, Ardian demonstrates how generative AI can help a highly demanding industry achieve greater efficiency and competitiveness.

II.D The need for experts will prevail to feed and monitor trusted AI.

Experts will shift towards knowledge AI assistant management and supervision.

To further understand the impact of knowledge assistance from the expert worker perspective, it is important to understand how such assistants are built and the prerequisites they depend on. They usually rely on Retrieval Augmented Generation (RAG), which is an agentic technique where the agent retrieves information from a data or documentary base based on an (AI) analysis of the user's prompt. To perform this analysis, the agent is provided with the user question, some data schemas, and a tool to semantically search for documents. To retrieve data from structured databases it generates query code using Generative AI. It then adds the reliable information it retrieves to the prompt to ensure an accurate response.

Building and running internal knowledge assistants thus requires many underlying work activities:

 Design the Knowledge Assistant, prioritize its feature roadmap, code its logic and write its "hidden" prompts.

- Maintain reliable and up-to-date documentary bases, requiring experts and documentalists to continuously curate documentation.
- Maintain reliable and up-to-date structured data bases, requiring a network of data governance people, that ensure correct data capture, flows, and storage.
- Maintain documentation (metadata) about documentary and data bases to orient AI towards the right information.
- Maintain a semantic map of company concepts, with glossary definitions, to teach AI what words mean and interpret prompts correctly.
- Ensure Knowledge Assistant Observability: track its reliability and user satisfaction to steer a continuous improvement roadmap.

Knowledge assistants will undeniably create jobs to run properly.



The solution works perfectly thanks to a vast wealth of data, which enables processes to be fed and optimized."

CASE STUDY

Elia: The chatbot that transforms access to product information at Legrand.



Legrand, a global leader in electrical and digital building infrastructure, has implemented a generative AI solution to address a critical challenge: accessing product information. Before the introduction of the Elia AI assistant, commercial and technical teams had to manually search through complex and disparate databases. This time-consuming and tedious process slowed their work. Sales teams spent valuable time searching, impacting the quality of their client interactions, while technicians faced longer response times, negatively affecting customer satisfaction.

Elia, a generative AI agent developed in partnership with Artefact, revolutionizes this process by centralizing and simplifying access to precise and contextualized information, fundamentally transforming how employees work.

OBSERVED IMPACTS

Enhanced Sales Team Efficiency: Elia enables sales teams to quickly find accurate information. Time spent on research has decreased, and sales arguments are now more structured and tailored to each client.

Optimized Technical Support: Technicians use Elia to resolve complex issues faster. The number of calls has reduced, and the quality of support has significantly improved.

Increased Autonomy and Organization: Elia has reduced reliance on information transfers between colleagues. Collaboration has become smoother, and employees have gained greater independence.

Organizational Transformation and Role Evolution: The project has led to a reorganization of practices and responsibilities within teams. Employees, now trained in using AI tools, focus on high-value tasks such as crafting prompts, managing content, and taking on roles like product owners.

This project marks a shift in roles, with experts now involved in content curation, defining business rules, and governing AI solutions.

The impact of internal knowledge assistance on experts is expected to be huge. The most obvious impact was already observed in our interviews: in current implementations, experts tend to receive less requests from their colleagues and can focus on the most complex questions the machine cannot handle. In other words, Knowledge Assistants scale expertise but do not disrupt it to the point of making experts useless. Beyond our study observations, we believe that the way knowledge assistants are implemented will be critical to their impact on work. For example, one could design a knowledge bot that cites the right expert for each question generating extra collaborations with experts.



A federated network of experts to feed central AI with local knowledge.

Similar to Traditional AI, we observed some level of expertise centralization in running the the Knowledge Assistants, with a remaining need for local expertise to grasp and consolidate local knowledge. Experts are a rare resource today and they will continue to remain highly sought after to continuously feed the agents with new knowledge.

On a more prospective note, expert work will probably be impacted by the emergence of "Performance evaluation agents" that can rate the quality of the Knowledge Assistant's answers. These evaluation agents may be gold for experts, as they would highlight unanswered questions. This automated gap analysis can guide their expert work towards new research, experimentation and content creation. In other words, the observability of enterprise knowledge assistants should become the magnifying glass for identifying people's learning needs.

Enterprise knowledge assistants can eventually disrupt support teams.

Finally, knowledge assistants will eventually be used by clients to better use products, potentially disrupting support teams. The use-cases we collected so far only impact internal support as knowledge assistants tend to be tested internally before external release. For now, we mostly observed a reduction of simple case calls and of call durations (see support team use-case Page 43). However, in our interviews, we observed that support teams are getting closer everyday to providing their clients with their reliable knowledge assistants, and, as shown in Section 3, support teams are expected to undergo profound transformations. On a more prospective note, expert work will probably be impacted by the emergence of "Performance evaluation agents" that can rate the quality of the Knowledge Assistant's answers.

To conclude, AI assistants transform work at individual level. The individual productivity & performance gains are real (30% of AI users claim performing more existing tasks with their saved time), but they are diffuse. They do not "add up" into clear macro-economic gains. However, as assistants become more reliable and widely adopted, the productivity improvement pocket will grow larger and HR will take advantage of worker augmentation to flexibly reorganize work. As studied in the next section, the advent of AI agents will allow the construction of specialized and reliable assistants, which should lead to larger individual productivity gains in 2025 and to the disruption of support teams delivering manual assistance. More generally, Als have already increased productivity and this trend should accelerate in the following years. According to our survey, 81% of AI users claim that they have already observed productivity gains in their department thanks to AI and many interviewees believe it is a question of months until macro productivity gains will be measurable in their company, especially thanks to the transition from Generative AI assistance to Generative AI automation.



II GENERATIVE AI ASSISTANTS DEMOCRATIZE EXPERTISE AND FUEL CAREER MOBILITY.

8 out of 10 have observed productivity gains with AI.



CASE STUDY

Responding More Efficiently to RFPs with Generative AI.

Veolia, a French multinational specializing in water, waste, and energy management, oversees a portfolio of over 4,000 contracts in France. With approximately two requests for proposals (RFPs) per day, the company faces increasingly tight deadlines and growing complexity in tender specifications. Managing RFPs was a time-consuming and often manual process. Business managers had to meticulously review tender documents, identify key elements, and craft tailored responses-all while juggling time and resource constraints. This approach heightened the risk of missing opportunities or failing to meet submission deadlines. To address these challenges, Veolia implemented a generative AI-based solution. This technology automatically vectorizes tender documents, identifies key factors, and generates a scorecard in just a few clicks. It also facilitates rapid structuring of kick-off meetings, accelerating the RFP response process.

IMPACTS AND RESULTS ON WORK

Time Savings: AI significantly reduces the time required to analyze and prepare responses, enabling teams to meet more RFP deadlines.

Improved Quality: Business managers leverage an integrated pre-prompting system, optimizing their efforts and allowing them to focus on customizing responses.



Better-Informed Decisions: The tool generates precise and actionable insights, enhancing the quality and relevance of proposed responses.

Skill Development: Teams have been trained in AI usage and prompt engineering, fostering skill development and better adoption of the solution.

While the tool offers substantial benefits, it requires careful use. Some users initially viewed the generated analyses as absolute truths, overlooking their own judgment. To mitigate this risk, Veolia implemented awareness initiatives and ongoing training programs to maintain a balance between AI capabilities and human expertise.

Thanks to this solution, Veolia not only meets its desired RFP deadlines but also strengthens its competitiveness in increasingly demanding markets.

ARTEFACT

III

There is a latent productivity boom ready to be unlocked with AI agents.

- 48 III.A AI agents are designed to solve well-scoped problems in autonomy and speed up work execution.
- 51 III.B Repetitive office jobs are at risk of agentic automation.
- 54 III.C Creative jobs will be democratized, creating new businesses and pushing professionals to excellence.
- 58 III.D We expect a double productivity & innovation shock with an increasing workforce demand.



DEFINITION

What are AI Agents?

AI Agents use AI to solve problems in autonomy. They can plan their own actions and freely explore their environment using "tools" to find solutions, perform tasks or deliver on objectives. They can also make decisions and trigger actions in autonomy, automating human work.

How do AI agents and AI assistants relate to each other?

An AI assistant is necessarily consumed by a human, to assist work. On the contrary, an AI agent interacts with machines for automation. It is important to note that AI agents often serve AI assistants and increase their performance by automating information search and problem solving behind the scenes. In deployments, AI agents often start by being embedded in an AI assistant for supervision and control before they are given more action autonomy.

KEY FINDINGS

- → AI agents can tackle complex cognitive tasks and business problems by flexibly and autonomously exploring their environment and generating solutions.
- → Unlike Traditional AI which orients processes, Agentic AI can also execute operations, pushing RPA to the next level.
- → AI agents can be used to accelerate task execution with human supervision (augmentation), or in simple cases with full AI trust, replace human work (automation).
- → A productivity & service quality boom is coming, with AI agents accelerating task execution and drastically reducing lead times.
- → Some repetitive and tedious clerical and administrative jobs will be displaced, mainly to higher-value customer-facing jobs.
- → Creative, research and engineering jobs, including software engineering, will be democratized, accelerating prototyping and driving innovation and business growth.
- → AI supervision combined with AI job creations will limit work replacement.



III.A AI agents are designed to solve well-scoped problems in autonomy and speed up work execution.

Beyond process orientation, AI agents autonomously trigger tools to execute cognitive tasks.

As mentioned previously, we expect the true disruption to come from Agentic AI. It will vastly increase assistance performance, automate many work tasks and eventually complete the scale and information disruption initiated by Traditional AI. While Traditional AI computes strategic process inputs to organize work and provide directions, Agentic AI has the additional potential to perform the work itself, particularly when tasks are quite basic and repetitive. For example, Generative AI can structure unstructured data, e.g., fill in a CRM based on a voice call with a client. This task is not process-oriented but rather a core clerical task.

Not only do Generative AI agents execute tasks, but they can also achieve objectives in autonomy by observing and acting on the world with tools they can trigger. In other words, they are problem solvers. This is a major evolution compared to RPA and deterministic, hand-deNot only do Generative AI agents execute tasks, but they can also achieve objectives in autonomy by observing and acting on the world with tools they can trigger.

signed decision tree workflows. Today, workflows often fail when faced with many exception cases that can not be captured in a manually-designed tree. Generative AI has the flexibility to overcome these exceptions and adapt to each situation in autonomy. This is why AI agents are often qualified as RPA 2.0.

AGENT EXAMPLES		
INFORMATION SEARCH AGENTS	Input	An information search question.
	AI agent	Analyze the question, select information sources and write information retrieval queries.
	Tools	Information query tools (read query): knowledge base, calendars, calculators, unit converters,
	Example	Market watch, job search.
STRUCTURED DATA CAPTURE AGENTS	Input	A data capture question together with text, images, videos, PDFs, Excels
	AI agent	Extract structured data from unstructured data.
	Tools	Data writing API, a database.
	Example	Write in a CRM client information heard during a client meeting or a support call.

MESSAGE WRAPPING AGENTS	Input	Information that needs to be conveyed and messaging style instructions.
	AI agent	Write the information in the requested format (summary, translation, email text, etc.)
	Tool	Messaging tool (email, content management system, campaign tool, etc.)
NEW INFORMATION GENERATION AGENTS, SIMILAR TO TRADITIONAL AI, BUT WITHOUT TRAINING ON A LONG LIST OF EXAMPLES	Input	An information generation question, (e.g., classification, next best action, an entire plan, etc.), context information and possibly a few shot examples or reasoning steps to follow.
	AI agent	Analyse context information and generate an answer.
	Tool	Any tool that needs the newly generated information as an input, e.g. an invoice processor consuming invoice classification, a message sendor consuming a generated message, a browser controller that can automatically click on the next best button, a workflow orchestrator consuming a task list.

THERE ARE 3 FUNDAMENTALLY DIFFERENT AGENTIC REVOLUTIONS



DATA CAPTURE AUTOMATION

Capacity of extracting structured data from unstructured documents thanks to AI's comprehension of language.i 1.....



REASONING AUTOMATION

Capacity of exploring a problem in autonomy, without predefined instructions, and of iterating on a solution.



.....

TOOL TRIGGERING AUTOMATION

Capacity of deciding when to trigger a tool and of generating the right instructions.

:



Generative AI changes AI's cost model with low CAPEX (build) and high OPEX (supervision), which eases agentic deployments.

Traditional AI had already triggered automation capabilities, as in the automatic invoice classification and processing case of Alan (see bellow). However, the cost of Traditional AI agents is so high that it has automated only highly repetitive tasks (millions of few minute tasks like in invoicing, or thousands of few hours tasks like in HR). The game-changing paradigm of agents powered by Generative AI is that they are much easier to build, thanks to their versatile, adaptive and evolving reasoning capabilities.

For example, in Generative AI, there is no need for large structured input data with labeled examples. With Generative AI, simple human tasks can be automated with just a few examples and unstructured context information. If, as humans, a few examples and some context are sufficient for us to perform a task correctly, it is probably also in Generative AI's reach. On the contrary, for a complex task with simple output (e.g., a forecast, a score, a recommendation), millions of extensive examples to rely on and no easy way to find the answer based on a few examples only, Traditional AI continues to be a good AI candidate because it specializes in accurately imitating the behavior of large and labeled data. In other words, Generative and Traditional are very complementary, and, together, will accelerate agentic work transformations.

While easier to build and less CAPEX intensive, Generative AI is less "controlled by design" and requires more supervision. In other words it is more OPEX intensive than Traditional AI and it will replace tedious & repetitive workflow tasks with more rewarding AI agent supervision work.

CASE STUDY

Invoice Processing as a Business-Centric Task at Alan.



Alan has revolutionized its healthcare invoice processing by integrating an AI solution.

With approximately 1 million invoices handled annually, the process previously required significant resources, costing &2-3 per invoice and tasks that could cause a delay of several days since it was manual work.

Today, automation completes the task in mere seconds, allowing Alan to reimburse claims in less than a minute at a marginal cost. Members receive near-instant reimbursements with improved data accuracy.

OBSERVED RESULTS

Significant Productivity Gains: Operational team productivity has increased by approximately 20%. **Improved perceived quality,** with faster reimbursement and less errors.

Resource Optimization: Automated processing handles high invoice volumes with fewer human resources.

Focus on High-Value Tasks: Freed from repetitive tasks, teams now focus on personalized member support and service improvement.

Creation of Strategic Roles: New positions have emerged, including overseeing process optimization and evaluating AI models.

This case demonstrates how AI serves as a powerful lever to transform operations, cut costs, and refocus teams on strategic, high-value activities.

III.B Repetitive office jobs are at risk of agentic automation.

Al agents will disrupt workflows and shift humans to more complex, high-value tasks such as customer-facing services.

Jobs with task variety are more protected than jobs that follow well-defined standard workflows. As we will see in this section, large parts of streamlined jobs as back-office and front-office jobs can be greatly accelerated by AI agents. Moreover, as many people in these areas have similar job descriptions, it is quite easy to reshuffle their tasks and to convert individual productivity gains into workforce reductions. What we have observed with Traditional AI is that people who get part of their work automated are shifted to more strategic and complex tasks without layoffs. For example, in our back-office automation cases like invoice classification or cashier automation, workers with free time were moved to more customer-facing (front-office) tasks of higher value or to AI supervision. Most interviewees believe that this practice will continue with Agentic AI as long as the transformation is slow enough to be absorbed by natural churn and growth effects.

Jobs with highly repetitive tasks that were too complex for Traditional AI (context variation, text writing variations...) but now in reach of Generative AI are particularly at risk of replacement. Many studies, such as the Word Economic Forum study, predict that call center, clerk, translation and film dubbing jobs will be negatively impacted by Agentic AI. Clerical back-office work seems to be the most at risk since a large part of their work is to report information from documents to tools and to take simple decisions in The flexibility of Generative AI, its superior performance in tasks (...), and its capacity to adapt to infinite context variations are expected to further push the automation transformation that was initiated by digitalized business rules and Traditional AI.

how each case should be handled. The flexibility of Generative AI, its superior performance in tasks such as OCR (Optical Character Recognition), and its capacity to adapt to infinite context variations are expected to further push the automation transformation that was initiated by digitalized business rules and Traditional AI. Front-office work and ticket management will also experience a significant wave of agentic work augmentation, automating even the simplest tickets, allowing customer support teams to focus on the most complex and important tickets.



The agentic transformation of workflows is all the more interesting as it divides lead times by several orders of magnitude.

When teams augment their workflows with AI agents, two things happen: productivity increases, but most interestingly service lead time and quality improve.

First, processes benefit from significant productivity gains, allowing workers to shift their focus towards more strategic tasks or simply increase process throughput by handling more tasks. Despite the absence of measured macro-economic productivity gains, our study points to the conviction that they will come very soon at the process level. As companies start trusting AI, they reduce the time spent on "human in the loops" tasks and benefit from automation time savings with augmented individual tasks being completed more guickly. Second, idle times in multi-worker workflows disappear, drastically reducing workflow lead times and improving service levels. Agents can autonomously perform a few successive tasks, after which supervision is mutualized and performed by just one person, eliminating time-consuming handovers. We have already observed AI ticketing agents divide ticket processing lead times by 2 to 4 ratios. Finally, AI agents often make less mistakes than

humans as they are not affected by fatigue or attention deficit. As a result, improved service quality becomes the third key benefit of agentic workflows.

Generative AI can even accelerate complex edge case processing, moving RPA to a new 2.0 golden age.

Let us take a look at a client ticket management workflow. Suppose it has already been semi-automated with some workflow management platform and Traditional AI ticket classification. The workflow still requires many workers to handle complex cases, e.g., rare cases demanding the contribution of an expert or risky cases in need of escalation and validation to grant clients with rule exceptions or discounts. All these cases demand human involvement, and handovers cause service delays. Generative AI Agents are disruptive because they can handle edge cases that do not fit into any already automated mainstream scenario. Mainstream cases cover the most frequent and simple tickets, they can be handled with simple rules and have been modeled in manually written decision trees and RPA workflows. Because Generative AI can "reason" based on



Matthieu Rouif CEO & Co-founder



Generative AI makes it possible to reconcile quantity production with maintaining quality."

Alma

simple context information and a clear objective much like a human would do, it is well-fit to handle these "last-mile" or "exotic" cases, removing the need for designing extremely large and hard-to-maintain decision trees. Additionally, Generative AI can even tackle tickets with known intent but novel client context, offering incredible flexibility and simplicity in automation capabilities. Thanks to agents, complex cases are automatically prepared and given to humans for quick validations, greatly accelerating processing times and productivity. To summarize, RPA is effective for tackling frequent use-cases with repetitive solution patterns while Generative AI can provide tailored high-quality solutions to generic problems, adapting to each client's specific context.

CASE STUDY

Automating Customer Ticket Management: The Case of ALMA.

Alma, a specialist in installment payments, offers solutions that allow its customers to pay for their purchases in multiple installments, providing increased financial flexibility. Every day, the company processes approximately 2,000 customer tickets related to various requests: installment deferrals, contact detail modifications, payment method changes, or handling sensitive cases such as deaths.

To address these needs, Alma has implemented an artificial intelligence solution that automates the classification and processing of a portion of customer tickets. Each week, 500 tickets are sent to the AI, which accurately categorizes 95% of them. Among these, it is authorized to respond directly to 36% of the simplest requests.

The algorithm analyzes each request, identifies its theme (installments, payments, regulations, etc.), and verifies the compliance of the information. This automation not only speeds up request processing but also improves data quality and statistics on customer needs, making teams more responsive and efficient.

OBSERVED RESULTS

Enhanced Service Quality: The number of repeated tickets has significantly decreased thanks to improved initial processing accuracy. However, the reopen rate for tickets handled by AI is currently 36%, compared to 30% for those processed by a human. This difference is explained by the fact that the AI does not yet have access to as much contextual information as human operators, a point that teams are actively working on.

Time Savings to Support Growth: The solution enables the management of a growing volume of requests without proportionally increasing human resources, thus fostering economies of scale.

Refocusing Employees on Higher-Value Tasks: Freed from repetitive tasks, teams can focus on more complex activities such as fraud management or continuous process improvement.

Improved Collaboration: Far from isolating individuals or rigidifying processes, AI fosters synergy between teams by streamlining interactions within the customer service department. It generates a positive impact by promoting better coordination and collective efficiency gains.

Slightly Lower Customer Satisfaction (CSAT) for AI: While AI optimizes response time and standardizes processing, customer satisfaction remains slightly lower than with human processing. This highlights the importance of continuously improving models and integrating new sources of information.

This case illustrates how AI can transform customer service management by combining operational efficiency, better human resource allocation, and enhanced quality, ultimately benefiting customer satisfaction and business growth.

ARTEFACT

III.C Creative jobs will be democratized, creating new businesses and pushing professionals to excellence.

Generative AI agents are the new pencils and brushes of content creation, impacting the end-to-end creative process.

Jobs involving non-repetitive but creative tasks, such as engineering and product marketing jobs, will also be impacted by AI agents. In this case, AI agents are embedded into design assistant tools becoming the new pencil and brush of designers. The design experience will totally shift from manual design in tools like Photoshop, AutoCAD, or coding consoles, to assisted or automated design within these platforms. AI agents will perform smart hidden creative tasks such as automated prototyping and provide assistance to ensure design quality. They can visually untangle wires in an electric map, add a specific lightening or backgrounds to photos, generate simple machine part designs to be assembled in a larger design, write entire software programs, etc.

Creative design tasks will also evolve in the inspiration and testing phases, which were traditionally seen as exclusive to human capabilities. Creative work will consist in imagining and writing detailed specifications and in checking and improving Al agents' designs. This new capability can be extended to all creative sectors, even in the perfume design sector, where Robertet now has an aroma agent to help designers find and test formulas faster (see Page 57).

In other words, the end-to-end creative process will be transformed, and time-saving levels will depend on targeted quality: Creative work will consist in imagining and writing detailed specifications and in checking and improving AI agents' designs.

- Automated brainstorming and knowledge collection
- Automated prototyping
- Automated design tests and feedback
- Automated design improvements

Professional content creators, such as designers, researchers and engineers, will have to strive for excellence to compete with AI and this competition will become fiercer as and when Agentic AI improves.



CASE STUDY



Photoroom: Generative AI Transforming Visual Content Creation.

Photoroom is an innovative company specializing in AI-assisted photo editing. It provides powerful tools that enable content creators to produce high-quality visuals without requiring advanced technical skills. By leveraging machine learning algorithms, Photoroom streamlines and accelerates the visual creation process.

Photoroom's solutions revolutionize creators' workflows by automating traditionally time-consuming tasks such as object cutouts, color corrections, and background modifications. Powered by AI trained on high-quality creative works, Photoroom's editor eliminates the need to search for stock images or manually edit photos, allowing designers to focus on ideation and experimentation.

IMPACT ON CREATIVE WORK

Increased Efficiency: Automating repetitive tasks enables designers to dedicate more time to the creative aspects of their work, boosting overall productivity. Accessibility: By democratizing access to sophisticated design tools, Photoroom empowers a broader range of users to create high-quality visual content, regardless of their technical expertise.

Visual Consistency: AI-driven features ensure uniformity in produced visuals, aligning all images with a brand's guidelines. This consistency strengthens brand identity and provides sellers with a standardized platform to showcase their products.

Cost Reduction: By minimizing reliance on external photography and editing services, businesses can achieve significant savings in visual content production.

Photoroom exemplifies how Generative AI agents are becoming the new "pencils and brushes" of content creation, transforming the entire creative process. By automating key design steps, these tools enable creators to focus on innovation and artistic expression, redefining the standards of visual production.

Software engineers will be particularly impacted by code democratization.

Today, anyone can write code with the help of an assistant and build prototypes in just a few minutes, e.g., on lovable.ai. However, this code is not production-ready which protects software engineers for now. However, Al agents will progressively learn how to debug in autonomy and to write faultless code. Many interviewees predict that, in the long term, software engineers will eventually be heavily impacted by Al. Within a few years (5, 10?), Product Managers and Designers will be able to produce the code that they need without relying on software engineers. Code creation will accelerate and the entire digital industry will boom as a rebound effect. This boom effect will greatly mitigate the software engineering replacement because Al agents will still need supervision and the expertise of software engineers.



Our observations are aligned with the Word Economic Forum's prediction of a tech job boom in the next 6 years (+110% in Big Data, +90% in FinTech, +80% AI & ML, +55% in Software & Application Development, ...) with an average annual growth of +22% for AIrelated jobs.



In the short term, we actually expect a peak in demand for software engineers. The agentic revolution will require many tech resources to build new platforms for people to build their agents, develop the agents themselves and rethink today's SaaS tools to shift from being user-friendly to agent-friendly tools. While many published articles explain how Generative AI will replace software engineers, we have not seen any company in our interviews that reduced their software engineering teams upon GitHub Copilot usage yet. What we have observed is simply an extension of how many people can now "code". In our survey, only 25% of IT AI users declared that AI destroyed more jobs than it created in their department. Developers do code faster with copilots but now struggle with code guality and encounter more bugs than before. Software engineers are still learning how to effectively include GitHub Copilot in their development processes. While software engineering might get disrupted in the long run, we have not yet seen clear early signals indicating this shift. Our observations are aligned with the Word Economic Forum's prediction of a tech job boom in the next 6 years (+110% in Big Data, +90% in FinTech, +80% AI & ML, +55% in Software & Application Development, ...) with an average annual growth of +22% for AI-related jobs.

With content creation democratization and innovation acceleration, new businesses will rise and create jobs.

Generative AI will trigger an explosion of content that will need to be managed to avoid information overload and quality dilution. This should create a very large number of data management jobs. The World Economic Forum expects Big Data jobs to double in the next 5 years.

More importantly, innovation will accelerate. With Generative AI, R&D researchers can find inspiration, efficiently search the scientific literature, create many new materials and formulas in minutes, drive their research simulations in full autonomy without data engineers, and eventually accelerate their findings. R&D lead times will drop, many new technologies and products will emerge and this will drive new businesses and jobs. Furthermore, the environmental transition will fuel the need for energy and material innovation.

Finally, product personalization and agile manufacturing should become a reality. Just as Traditional AI made Marketing more sophisticated and created Digital Marketing jobs, we believe that Generative AI will create the need for more complex supply chain, infrastructure and manufacturing demand, also creating jobs.



CASE STUDY

NatureIA: AI at the service of fragrance and flavor creation.

Robertet, a global leader in perfumes and flavors, faces the complexity of managing multiple formulas while meeting clients' sensory expectations. Robertet has more than half a million formulas, and creates thousands of new ones each year.

Before the introduction of AI, creators and evaluators were forced to search through their portfolio using rudimentary search systems based on very few specific criteria, such as formula name, and some technical characteristics. Furthermore, flavors and perfume descriptions are subjective to the individuals, hence just these criteria were not enough to find a good match. This results in long searching and iteration time to get the right formulas for a given brief.

To address these challenges, Robertet deployed Naturia, an artificial intelligence solution that allows creators and evaluators to search through their portfolio with their personalized emotional filter.

This technology is based on an embedding system, which transforms formula data and emotional data into digital representations that can be understood by AI.



By analyzing these representations, the system can establish links between the chemical formulation and a given user's response to a flavor or perfume, allowing the users to efficiently search for a given formula, propose new ingredients that would fit an emotion.

OBSERVED RESULTS ON WORK:

Increased speed: The evaluators find formula matching their clients brief quicker, allowing them to propose samples to their clients faster.

Portfolio valorisation: By improving search within the portfolio, the tool allows to reuse and valorise existing formula instead of going into a new creation process.

Transformation of Practices: By integrating AI into their daily routine, employees embrace a more data-driven approach while retaining their creativity.

Naturia illustrates how AI can revolutionize work in a creative industry by providing powerful tools that unlock the potential of teams and improve their efficiency.



III.D We expect a double productivity & innovation shock with an increasing workforce demand.

Enterprise productivity gains are tightly linked to AI agent trust and AI supervision workload.

As we already mentioned, we are at the edge of a productivity shock. According to our survey, 81% of AI users claim that they have already observed productivity gains in their department thanks to AI and many interviewees believe it is a question of months until macro productivity gains will be measurable in their company, especially thanks to the transition to Agentic AI. Indeed, these interviewees are on the verge of reducing systematic "human in the loop" for their agents and their company will benefit from greater automation very soon. "Human in the loop" & AI supervision work reduction can only happen if humans put greater trust in their agents. In other words, the end trust level that businesses will put in their agents is the main variable to estimate long-term work share ratios between workers and agents and to predict work replacement levels.

Consequently, quantifying exactly future productivity gains is a hazardous exercise. The Word Economic Forum did not publish any prediction in its study because of high uncertainty. Month after month, more and more agents will be deployed, AI performance will progress, trust in these agents will grow, and productivity gains will accelerate. Looking at the history of digitalization, we have already seen some clerical jobs totally automated by software, e.g., "payroll data collectors". Agentic AI can be seen as a Digital 2.0 revolution that will further automate cognitive jobs with novel flexible reasoning capabilities. Enterprises like Klarna, a digital native payment company, already publicly declare that they will end up reducing their workforce by 60% thanks to Agentic AI. We expect large productivity gains with Agentic AI, potentially reaching up to 80% gains in teams that can model their activities within well-organized workflows, which is typically the case in office jobs.

While clerical and administrative jobs are at risk of replacement, most workers will see their saved time absorbed by task growth and supervision.

The key question is to anticipate what workers with automated tasks will do with their liberated time. In many cases we saw, workers did not lose their job and were reAgentic AI can be seen as a Digital 2.0 revolution that will further automate cognitive jobs with novel flexible reasoning capabilities.

In many cases we saw, workers did not lose their job and were redirected to higher-value and often more pleasant tasks.

directed to higher-value and often more pleasant tasks. In other cases, typically in ticket management, workers were saturated with tasks and AI agents helped reduce backlog saturation. Finally, we also found workers who were positioned on managing the AI applications that continuously need supervision and improvement. We believe that most processes will continue to work on a human-machine collaboration mode, which will limit job replacements.

For workers with highly repetitive tasks such as data capture clerks, we expect productivity gains to be so high that some will lose their jobs and need to change sectors or companies. The Word Economic Forum also aligns with our analysis on job destructions, predicted to mostly concern all kinds of clerks and repetitive jobs (-30% of postal service clerks, -30% of bank tellers, -25% in data entry clerks, -20% in cashier and ticket clerks, -20% in administrative assistants and executive secretaries, ...).

Together with AI supervision, Generative AI's innovation boost is the most powerful defence against work replacement.

Fortunately, job change will be eased by two factors. First, new businesses will emerge thanks to Al innovation, creating jobs. In McKinsey's Al adoption scenarios, the most optimistic one shows a +3% GDP gain. We expect for example the emergence of "Agent as a Service" companies. These companies will provide specialized agents and cover a very large spectrum of services: augmenting travel planning, helping with doctor search, understanding regulations, and assisting with school mathematics, etc. These new companies will hire new workforce, including back and front-office jobs, disrupting industries like travel agencies, Google search, legal advisory, school tutoring, etc. SaaS companies will also add an agentic layer to their offerings. Workers who lose their jobs because of agent replacement should find new positions in new companies or in their own, driven by internal growth. In September 2024, Salesforce CEO Marc Benioff announced the development of "Salesforce Agentforce" for customer experience and service, along with the hiring of more than 1000 employees to meet the demand for AI agents. Second, knowledge assistants will help changing job areas and accelerate adaptation to new tasks, without, of course, eliminating completely the need for complementary reskilling programs to support workers affected by AI disruption.

Second, knowledge assistants will help changing job areas and accelerate adaptation to new tasks, without, of course, eliminating completely the need for complementary reskilling programs to support workers affected by AI disruption.

All in all, the World Economic Forum study predicts a +22% per-year increase in jobs by 2030, so job creation should be greater than job destruction according to their survey results. This finding matches the early signals from our survey, where more Al users (25%) declared that Al increased their department workforce than Al users who declared the opposite (20%).



In terms of number of jobs, integration of AI has resulted in:

ARTEFACT

IV

Enterprises with proactive AI governance double the benefits.

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KEY FINDINGS

- → Enterprises should embrace rather than reject the unstoppable adoption of Generative AI assistants.
- → Beyond technical AI training, AI usage exchange communities and prompt library sharing are very effective to foster AI experimentation and usecases.
- → Enterprises should imagine their own "future of work" with social partners and take advantage of AI to improve work conditions.
- → Enterprise AI governance should identify small teams with high productivity and work well-being improvement potential to prioritize agentic deployments and empower these small teams in their self-reinvention journeys with inspiration, workflow redesign guidance and no-code agentic platforms.
- → Enterprises should set up enterprise AI assistants and internal schools to train AI-displaced people on their new jobs and AI-augmented people to adapt to increasingly frequent technology changes.
- → Managers of AI-augmented teams have a critical role to play to ensure cognitive stimulation and expertise building of their teams, in particular, managers should set up agentic tactics and AI usage policies in their teams (% unplugged agent time, copy-paste disabled, etc.).
- → Enterprises should invest in knowledge and data foundations and, more generally, govern AI trust, as trust is key to reducing AI supervision costs.
- → To ensure agentic autonomy and improve productivity, enterprises need to rethink their IT and make agentic-friendly tools available.
- → On the long run, enterprises should seek to accelerate their innovation lifecycle with AI to sustain growth, create jobs and remain competitive.



IV ENTERPRISES WITH PROACTIVE AI GOVERNANCE DOUBLE THE BENEFITS.

Impacts of investments in proprietary AI.



Our survey shows that AI users in companies that invested in proprietary AI experience nearly four times the productivity and work benefits of those in companies that did not.

declare observing more job creations than destructions (against 12%, the others mostly seeing no difference).

54[%]

declare that their department benefited from productivity gains (against 14%).

Conversely, 80% of AI users who observed high productivity gains with AI claim that their company invested either in computation power, data platforms or proprietary AI.

In this section, we are going to explain how enterprise governance and top-down initiatives can also double the benefits of the agentic AI revolution despite its very different nature. While Traditional AI comes with high CAPEX and low OPEX and is naturally managed with top-down governance, Generative AI democratizes AI and could be seen just as a spontaneous bottom-up revolution. However, to convert diffuse individual gains into enterprise gains, enterprise top-down empowerment and transformation initiatives are necessary. As we will see, there are two main reasons for this: first the need for work reorganization with the mandate to change job descriptions, reallocate workers on new jobs and ensure agent supervision budget; second, the need for technical agentic foundations such as data, tools and platforms. In other words, experimenting with Generative AI requires lower CAPEX, but industrializing and running agents in production with sustainable productivity benefits require further investments and high OPEX, and thus an engaged and well-sponsored AI governance team.

To double agentic AI benefits, proactive AI governance can act on many other levers than work reorganization and technical foundations, such as processes, competencies, culture and policies, and this section will guide the reader through our AI governance best practice findings.



IV.A Enterprises need a continuously trained and flexible workforce to keep up with constant AI progress.

Al Agents will become the workers' new collaborators: this transformation will require new skills and juniors will lead the way.

All office workers will be impacted by Agentic AI in their daily interactions with Digital Applications. We expect to see more and more voice and bot interfaces, and work time spent in filling in tedious forms should be reduced. Video conference meetings get recorded and meeting minutes are automatically written. Summarizing large amounts of documents is now an easy task while it used to take days. Analytical graphs can be generated upon natural language requests in seconds.

The consequences of these new agentic capabilities are both positive and negative. Agentic AI saves time for more

strategic thinking and high-value customer-facing activities, but it also multiplies text, messages and data which can yield to information overload. A few interviewees complained about this effect. We believe that workers will have to adapt to the Agentic world, focus on the right information and assistance requests and learn how to generate succinct information. In many ways, Agentic AI will transform our ways of working and workers will have to learn how to adapt. Moreover, changes will keep occurring faster and faster, and workers will constantly be learning new skills. The learning journey will be never-ending and enterprises will have to set up internal "schools".



Guillaume Desloges

Alma

The integration of AI into operational processes improves quality by reducing repetitive tasks. It also allows teams to refocus on more rewarding, intellectually stimulating, and higher valueadded missions."



Juniors will play a key role in reinventing work in an agentic world. First, they are today's best AI adopters as a Heaven agency study shows that 39% of 18-25 year olds use AI daily (not necessarily at work) and only 6% never use it. According to our survey, 29% of junior workers report using AI at work (versus 12% in the general worker population). Second, they have more to learn than seniors, and should benefit the most from AI. Juniors will start working with AI and naturally integrate it into their ways of working. During our study, interviewees were particularly wondering how juniors will learn their job. Very often the real value of the first years on a job is observation and learning. While observing how the business works, today young professionals perform easy-to-automate tasks such as writing summaries, taking notes, managing project agendas, etc. What happens if AI replaces junior work? Some interviewees believe that AI will not replace juniors because agents need to be controlled. On the contrary, it will accelerate initial learning and juniors will immediately perform higher value tasks than before thanks to the assistants. Others think that AI should not be allowed for juniors to force them to learn by doing tasks manually, with the same philosophy of those agent managers who unplug automation part of the time.

In the long-term, everyone agrees that junior work will be transformed but few people manage to precisely imagine how. First, we think that new junior jobs will emerge, such as simple agent supervision. Then, we agree that Al agents will accelerate junior learning. Thanks to Al assistants, juniors will deliver much more value than before and learn along the way.

Most importantly, the new generation will lead the way of agentic adoption and will teach older generations how to best collaborate with agents.

On average, 47% of employees trained in AI feel they lack sufficient training. Would you say that you lack training? (to employees using AI).



Although trained, AI users demand more training, and training has to be tailored to each worker's context.

Both our survey and our interviews show that the enterprise has a role to play in the success of individual AI assistance. It is in the enterprise's interest but it is also a worker expectation and demand. Not only do workers demand more reliable AI assistants, they also expect their enterprises to invest in worker AI training. Naturally, the more workers will know how to make good AI usage, the more they will benefit from individual productivity gains. According to our survey, 52% of AI users declare having already been trained on AI. 26% of AI users even have access to an AI support team. Training rates decrease with age from 68% for 18-24 year-olds down to 44% for 50-64 year-olds. Numerous factors can explain this trend such as time availability for training but also a stronger appetite for self-training of young generations. We believe that this generational training gap should attract the attention of HRs to ensure that seniors are as skilled as juniors in their AI usage.

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Have you received training to use AI?



80% 68% 51% 60% 48% 44% 40% 20% 0% 18-24 25-34 35-49 50-64 years old years old years old years old

52% of employees who use AI have received training.

An important finding of our survey is that AI training seems to be incomplete. 51% of AI users believe that they lack training, with, as expected, a higher rate for seniors (57% of 35-49 year-olds, 53% of 50-64 year-olds). What is unexpected though is that 47% of users who have been trained consider that they still require more training. We analyzed this finding with interviewees who shared their thoughts:

- AI technology evolves so rapidly that training is never-ending. Setting-up an up-to-date online observatory of AI tools & services with some usage recommendations could help workers navigate all the new AI tools constantly appearing on the market and in the company.
- People believe they need training while what they really need is to be informed about the possibilities that Generative AI opens for their own work. They need to be inspired rather than trained to reinvent their work. Interviewees found peer-sharing sessions, AI user communities and shared prompt libraries more effective than trainings
- Yet, practical training on "AI tools" is useful for productivity and performance gains, especially if exercises are chosen in the trainee's work context. We found that 1 hour theoretical training is not effective and that practical & work contextualized sessions over several days show better results. The success factor is to have workers start adopting AI. Once they start, they learn by doing and progressively find where to make individual productivity gains.

51% of AI users believe that they lack training, with a higher rate for seniors.

- People need training on their new jobs when Generative AI has transformed their daily tasks. For example, they need to learn how to supervise AI or they need to learn communication soft skills as they move to front-office or strategic positions.
- Workers will be asked to be generalists with the help of knowledge assistants but they will need some initial training on adjacent domains to be truly performant as generalists. For example, a salesperson who has to shift from selling a product category to selling the whole product catalog will need to have some introduction to the entire catalog and general good sales practices.

To respond to this training demand, enterprises should set up internal schools and dedicated AI assistants.





AI rebalances skills within teams: seniors share their strategic knowhow, while juniors contribute their mastery of digital tools. This symbiosis creates a new intergenerational dynamic."

Enterprises deploying AI should pay attention to cognitive stimulation and help workers position themselves in the human-agent collaboration.

More generally, enterprises have a role to play to avoid long-term competency loss for their workforce. With AI assistance and the cognitive revolution, there is a risk of human cognitive skill degradation. Just like humans do not memorize phone numbers anymore because of cell phones, there is a risk that they will stop knowing how to synthesize an idea or build a plan tomorrow.

Many interviewees questioned the impact of AI assistants and agents on their team's long-term skills. Our survey shows that for the moment, AI users keep their critical thinking abilities. When asking AI users which bad behavior they have with AI, only

- 33% feel contentment, accepting a sub-optimal AI's solution and estimating that improving it is worthless.
- 32% admit over-trusting AI.
- 23% feel more passive in their role.
- 18% claim already losing some skills because they were replaced by AI on a critical task (this number will increase with years).



Employees exposed to AI maintain their critical thinking skills. Overall, would you say that AI causes...?



What seems to be the most important question to solve for any worker is his/her added value compared to agents and the skills to develop in order to stay relevant in the future agentic world.

Beyond training, enterprises can act on cognitive health in their AI deployment policies. Throughout our interviews we collected a variety of emerging tactics. Some choose to develop stimulating assistants that push the user to challenge the answers and to read more. Also, an enterprise had the idea of blocking "copy-pasting" of its AI assistant responses, forcing the worker to read and rewrite its own content. A more classical tactic is to unplug assistants, often part-time, either for a learning population or for an AI supervising population. The value of unplugging assistance for the supervising population is double: it ensures that human fallback remains functional (cognitive maintenance) and it allows humans to detect new cases and improve agents (agent maintenance).

What seems to be the most important question to solve for any worker is his/her added value compared to agents and the skills to develop in order to stay relevant in the future agentic world. We found two types of skills that are particularly valuable in an agentic world: deep expertise about a topic and human relationship skills:

- Developing core expertise will be essential to run the agents, and workers will have to be proactive learners in order to manage their agents and position themselves in the work space
- Humans will always value human interactions and seek peer relationships. Workers delivering human services such as infancy and elderly care, health care or social care should be preserved.

To conclude on an optimistic note, humans are very attached to their reasoning abilities because it is what distinguishes them from animals. We feel defined by our intelligence. Combined with the fact that work relevance will increasingly be linked to deep expertise and relationship skills, we want to believe that we might lose some cognitive abilities but will gain others to adapt to a more intellectually competitive world.



Matthieu Grymonprez

Global CIO/CDO



"

While AI simplifies access to information, it also threatens critical learning, as did the calculator or Google Maps. The challenge is not to sacrifice thinking and logic on the altar of Convenience."

Competency degradation and polarization are a risk for both the workforce and productivity.

Despite our optimistic note about humanity's attachment to its cognitive superiority, we acknowledge that humans can also be cognitively lazy. Enterprises that do not manage competencies might be confronted with some polarization issues in its workforce. On one side, the AI proactive workforce which will perform better, learn faster and easily move to higher-value tasks, and on the other side, the AI passive workforce whose career evolutions will be limited and who will overtrust AI and show degraded performance. AI passive workers will poorly collaborate with the agents with missed errors and improvement opportunity loss. To successfully manage competencies, we believe that management practices will have to deeply evolve from individual performance to worker-machine collaboration performance.

Moreover, each agent will need supervision and continuous improvement by experts and by skilled users, so managing competencies to ensure the continuity of high-skilled workers will be critical. We believe that measuring the enterprise ability to maintain high-performance agents should become a new enterprise Al governance activity. To successfully manage competencies, we believe that management practices will have to deeply evolve from individual performance to workermachine collaboration performance.

The training need is vast and there is a risk of rising inequalities and worker polarization. According to the Word Economic Forum, near 60% of workers will have to get upskilled by 2030 but 11% might not have access to training. The complexity of AI training lies in the need for work contextualization. Virtually, there is a need for as many training courses as there are workers. The key may be to build AI training agents that are able to personalize training to each worker and such tools could become a new enterprise or even public service offer tomorrow.

IV.B AI top-down governance can prevent AI risks and protect AI benefits.

The enterprise also plays an important role in mitigating AI risks for the workforce, the enterprise and the environment. The most classical risks we found in our study are information leakage, hallucinations, ethical biases, work replacement fear and adoption rejection, lack of usage transparency (also called shadow AI), and environmental risks.

Security.

Among all these risks, information leakage is definitely the top risk driving most enterprises' first top-down initiatives. In total, 49% of AI users at work declare using external AI tools (e.g., ChatGPT, Perplexity and Midjourney). Most

enterprises start by deploying secured AI assistants, and, according to our survey, 66% of AI users claim using company-deployed AIs. We observed however that deploying secured assistants does not prevent workers from us-



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ing external tools as 16% of AI users at work claim using both internal and external AI tools. This is why enterprises sometimes also write AI usage charters and good security practices. Today, 37% of AI users get good practice recommendations from their employer and 30% get strict rules.

Hallucinations and ethical biases.

The risk linked with AI hallucinations and ethical biases is bad decision making and mistaken agent actions. Enterprises today mostly respond to this risk with acculturation and training to foster critical thinking. They also wisely choose assistants that cite their sources and build inhouse assistants that are statistically more reliable and fit to the user's purpose. We believe they also need to strengthen their knowledge management processes and make reliable data accessible to agents. Not only will a top-down Data Governance have to organize information on a semantic point of view to reflect the entire enterprise knowledge, but it will also have to technically adapt data accesses to fit agent retrieval needs and we expect many innovations to come in this area. Finally, enterprises will have to set up Agent Observability to track hallucinations and biases. It is still very rare today, but more and more enterprises will build agent quality evaluators, which are

Most enterprises start by deploying secured AI assistants, and, according to our survey, 66% of AI users claim using company-deployed AIs.

agents that score other agents' reliability and can alert the agent supervisor when there is an error suspicion.

Contrary to hallucination risks, ethical biases do not only come from AI itself but also from the way it is used and incorporated in enterprise processes. For example, gender diversity in AI design and deployment teams is crucial to steer projects in the right direction and transform work including all gender perspectives. More generally, it is important to ensure that AI use-cases impact work in an ethical way, and involving social partners in early AI discussions is a good and common practice.



Claire Mathieu Head of Data & AI



At SUEZ, we firmly believe that developing responsible AI requires relying on diverse profiles and on a wide variety of perspectives right from the design phase of our systems all the way to their implementation."

Environmental impact.

In terms of AI environment impact mitigation, enterprises can also take important initiatives. First they can raise awareness about AI energy and water consumption, encouraging workers to assess AI usage benefits relative to its environmental cost. Second, they can promote the selection of smaller AI models for simple use-cases. To be effective, enterprises should track AI model environmental impact and share AI model consumption transparently with all workers. Thanks to AI model consumption transparency, workers can autonomously optimize their usage. Third, teaching how to prompt AI "right the first time" is a powerful lever to reduce its environmental impact. Finally, enterprises can further reduce prompt iterations by adding hidden pre-prompts that complete user prompts to help AI users get the right information.

People are afraid of what they do not know, that's why AI acculturation is so important.

Al resistance and shadow adoption risks.

A lack of wide adoption is also a major risk in terms of AI benefits, as individual productivity gains do not add up without massive adoption and work reorganization. Al acculturation programs help calming AI fears and external use-case inspiration with market-watch efficiently drives motivation. Another important lever is the inclusion of this new worker-agent collaboration in work performance rewards to incentivize AI adoption, e.g., reward AI assistant usage and productivity gains, prompt library contributions and AI agent supervision performance. Performance reward revision is critical to protect benefits as many interviewees report shadow AI practices. Workers fear that their sudden productivity gains will backfire at them so they hide gains and they are lost for the enterprise. On a day-to-day basis, it is also important to remind workers of AI usage good practices to avoid counterproductive effects which could slow down adoption, e.g. provide immediate feedback when noticing AI contentment or excessive content generation yielding lengthy texts and information overload.

As we will see in the next section, the most critical lever to ensure AI benefits is to proactively transform work and generate measurable productivity gains.

66% of employees use AI integrated into tools already used internally.



IV.C Agentic transformation will succeed in small teams with strong productivity or work well-being gain potential.

We interviewed many companies experimenting with Generative AI Agents in top-down initiatives and we found that companies with successful agent usecases share similar development & deployment practices. First and foremost, they support and empower teams to self-reinvent their own work and processes. In practice, they lay down the team's workflow, detect the main bottlenecks and let the team start experimenting with agents for work augmentation.

Small teams are best suited for collective innovation.

Empowering teams with AI experimentation is much easier to do with Generative AI than with Traditional AI because anyone can learn how to write a prompt. Platforms like Dust and UiPath support this empowerment by offering nocode assistant and agent building tools for their workflows and SaaS tools like Salesforce provide embedded agents ready to be tested by teams. Contrary to Traditional AI where transformation was always a top-down journey with central AI development, Generative AI allows bottom-up transformations.

In small teams, we observed that individuals start experimenting with AI on their own tasks, then teams come together, share their results and collectively reinvent their team workflows. These back and forths between individual worker ideas and experiments and collective agentic initiatives are the secret sauce for sustainable productivity gains. This is why we found the best results in small teams where full and daily collaboration is possible. As a consequence, we believe that in large departments, a good transformation practice is to define a small pilot team to ideate and test agentic augmentation in their workflows.

Although experimentation is a team work, enterprises can govern such initiatives by identifying which teams are best fit for agentic AI productivity gains, by anticipating work evolutions with HR and social partners, and by providing agentic support in terms of methodology, tools and agentic expertise.



Self-disruption and empowerment are the most effective way to deploy Agentic AI but it requires job security guarantees.

A clear advantage of bottom-up transformation is that it is guaranteed to be relevant and adopted by the workers. Agent quality is very dependent on collecting the right contextual information and data, which is best known by field workers. It is important to note that the self-team transformation success stories we found all happened in fast growing companies where workers see their workload grow day by day and feel an urgency to automate their tasks.

In larger companies, we rather saw top-down agents being deployed in meticulous collaboration with local teams. Teams are embarked from day 1 and are given full transparency on the transformation journey. Interviewees said that workers were always happy to get rid of hard repetitive work. In large companies we interviewed, workers welcomed the transformation because they knew from the start that their jobs were not at risk and that their work will become more interesting and pleasant. Common reassurance factors for job safety were task saturation or the presence of sub-contractors who would be the only replaced workers. We believe that back-office and front-office service providers will be the first victims of Agentic AI because their clients will probably prioritize their agentic transformation on their scope to reduce costs.



Trust is built and maintained through total transparency on deployments."

METHOD To prioritize agentic deployment, AI governance needs to select the first departments and teams to support and empower. The following criteria can be used for prioritization: Team business criticality and productivity gain value for the enterprise. Team workload growth and saturation. Presence of well-organized workflows (support, payroll, invoicing, finance, procurement, etc.). Percentage of complex and time-consuming cognitive tasks not yet automated. Work repetitiveness and arduousness. Motivation for self-disruption and work well-being improvement. Presence of digital tools that are usable by agents (otherwise digitalization is a first step, with open API tools).
CASE STUDY

Alan: Generative AI for Personalized Medical Assistance.

•**2**•alan

Alan, a French pioneer in 100% digital health insurance and a leading player in the French Tech sector, currently serves over 670,000 insured individuals across 30,000 companies. In 2024, the company is projecting an annual growth rate of 50%. Always at the forefront of innovation, Alan has ventured into generative artificial intelligence with a clear goal: to improve access to medical information while enhancing the experience of its members.

Before the introduction of generative AI, Alan's insured individuals had to wait 30 minutes, and the exchanges could span hours or days to receive medical answers or interact directly with a doctor, often limited by their availability. This caused frustration for patients and increased pressure on medical teams.

With the development of Mo, an AI-powered medical assistant, Alan is transforming this dynamic. Integrated into the mobile app, Mo is available from 7 AM to 11 PM and provides relevant medical information in seconds. Powered by more than 440,000 synthetic and anonymized conversations between doctors and patients, the tool is built on models developed in partnership with entities like Mistral AI, while being strictly governed by safeguards defined by medical professionals.

OBSERVED RESULTS ON WORK

Reduced Delays for Users and Smoother Interactions: Thanks to Mo, patients can quickly obtain preliminary medical advice, facilitating their healthcare journey. Doctors also benefit from significant time savings due to pre-processed information. **Enhanced User Satisfaction:** By offering a responsive and personalized tool, Alan improves the user experience, thus fostering customer loyalty.

AI-Human Complementarity: Mo acts as a co-pilot, guiding users while leaving the responsibility of diagnosis and treatment to doctors, thus preserving the human and ethical aspects of medicine.

Alan has ensured that the role of Mo is clearly communicated to users: it is not a diagnostic tool, but rather an assistant designed to provide initial medical guidance. The medical team maintains full control with a systematic review of exchanges within 15 minutes, ensuring impeccable quality and reinforcing patient trust in the assistant's use.

With Mo, Alan not only enhances its offering but redefines access to medical information in a sector where responsiveness and personalization have become indispensable expectations. This initiative perfectly illustrates how generative AI can be integrated into a sensitive sector like healthcare, supporting professionals while improving the experience of insured individuals.

Al supervision tactics increase the trust in agents and further improve productivity.

Another key success factor for productivity is AI trust. Without AI trust, workers are augmented but they will waste time double-checking the work of agents. Supervision costs are too high and degrade productivity benefits. The good news is that Generative AI is much less "black box" than Traditional AI because agent prompts are directly understandable by the workers, which contributes to trust building.

All interviewees experimenting with agentic transformation said that they start by building assistants with heavy "human in the loop" before they shift to more autonomous agents with lighter supervision. At the beginning, workers check AI quality at every step. These quality checks mitigate AI risk but also contribute to agent performance improvement until workers empirically observe that the agent is always right. AI trust is earned progressively and the agent is given increasing responsibilities in triggering tools. Some interviewees shared that they do not "unplug" humans 100% of the time and leave a small percentage of cases fully managed by human workers, or at least supervised, for 4 reasons:

- To build and maintain human expertise
- To catch new input demand to update the agent accordingly
- To control risks on major actions
- To monitor agent performance drift (demand, data and tool evolutions)

Some interviewees also mentioned that they are setting up "trust scoring agents" to provide feedback on agent performance and organize automatic human fall-back in case of a doubt. From all these observations, we expect Agentic AI to drastically increase back-office and front-office productivity and lead times. However, it will always require human workers for supervision, continuous improvement and edge case management.

CASE STUDY

Automating Customer Support with AI: The Malt Case.

Malt, a European leader in the freelancing sector, connects over 500,000 freelancers with businesses across Europe. Managing customer support for both freelancers and clients became increasingly challenging with the company's rapid growth, as inquiries ranged from payment delays to legal compliance questions and profile optimization for freelancers.

Historically, support teams handled these inquiries manually through a ticketing system, with an average of 8 minutes per ticket. This limited their ability to meet the rising demand driven by Malt's expansion.

To address this, Malt deployed an AI solution featuring six specialized assistants tailored to key inquiry types. For example:



- Legal and Compliance Assistant: Ensures adherence to local regulations, providing quick guidance on complex legal queries.
- **Profile Visibility Assistant:** Offers tailored recommendations to help freelancers optimize their profiles, boosting visibility and booking potential.
- **Payments Assistant:** Delivers personalized responses for payment-related issues using CRM-integrated transaction data.

These assistants, powered by a rich dataset of ticket histories, streamline processes by categorizing tickets and generating draft responses. Currently, 80% of AI-generated responses are approved without human adjustments.

OBSERVED RESULTS

Reduced processing time: The average time per ticket decreased from 8 minutes to 4 minutes.

Increased operational capacity: Human agents now handle 20% more tickets per person, enabling them to manage higher volumes without increasing headcount.

Improved response quality: With 80% of responses approved without human intervention, the AI ensures reliable and swift handling of client inquiries.

Resource reallocation: The time saved has allowed agents to focus on strategic tasks such as improving FAQs, onboarding new Malters, and analyzing data to anticipate future needs.

ORGANIZATIONAL IMPACT

This AI solution has enhanced Malt's operational efficiency while meeting the growing volume of customer inquiries. The system enables the company to absorb this growth without scaling the workforce at the same pace as with the original model, optimizing available resources while maintaining high-quality customer experiences.

This case demonstrates how a well-designed AI solution can transform customer support, combining efficiency, enhanced collaboration, and an optimized client experience.

IV.D As AI becomes smarter, will a few agentic and software businesses replace work?

Our study's conclusions rely on the current state of AI capabilities. Month after month, significant progress is made towards more reasoning excellence by large AI models. Moreover, we can see the emergence of "orchestrating" agents, who do not only get inserted in workflows, but actually dynamically build those workflows on the fly. Beyond the automation of repetitive tasks, will AI be able to replace non repetitive tasks? After the Digital nomad, will we see the AI nomad who lets a connected and selforchestrated set of agents run a business in full autonomy?

Agentic software promises infinite feature flexibility, complexifying supervision work

Taking a step back, the promise of reasoning AI is not only to automate workflows but entire processes. Satya Nadella, Microsoft's CEO, predicts that AI agents will replace traditional SaaS applications, which currently hardcode business processes. With agentic AI, future applications will become highly flexible, offering an an infinity of natural language features to their users. Developers will shift from hardcoded business logic to agent building, data and memory management, tool design and agentic connectivity. This will fundamentally transform Enterprise architecture and IT.

Undeniably, software is going to be heavily impacted. All major SaaS companies are announcing their own agentic layers. However, as our study showed, AI must first earn the workers' trust through mechanisms that add a "human in the loop". Also our interviewees shared that they want systems with "human fall-back" interfaces. Will these interfaces manage to get rid of good old forms with deterministic action buttons or will humans only interact with lower-level controllable agents? Tomorrow's agentic software will have to provide security and complete control over the business. We thus believe that SaaS software is not going to disappear anytime soon, but rather will transform, requiring increasingly complex supervision and control.

ARTEFACT

Full supervision externalization to agentic software providers is unlikely on critical processes.

An important question is who will be in charge of agentic software supervision. Will it create jobs within every enterprise or will "agentic software" providers be able to guarantee 100% reliability of their software? By nature, Generative AI outputs are probabilistic and user inputs are unpredictable, so 100% agentic reliability by design seems to be an Utopia. This is why we believe that agentic software providers will provide the agents and tools for supervision but not perform the entire supervision themselves. Note however that for some very standard or simple processes, such as payroll, there are chances that some agentic software providers take on all supervision work.

As far as strategic or transversal cases, enterprises will build in-house agents with internal supervision work.

Today's SaaS application agents are limited to data and back-end actions available in the SaaS application. After experimenting with these agents, companies will probably find limits to these SaaS provided agents and will want to build their own agents, with access to the entire enterprise information, the internet and enterprise tools. In other words, unless all SaaS providers start opening their data and tools to other agents, a tension will arise between Make or Buy agents. As shown earlier, building agents on enterprise agentic platforms is going to be possible and companies will probably want full control over their strategic agents. Indeed, their core processes and their secret sauces will be encoded in these agents, making full control over orchestration logic crucial to business success.



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With the emergence of nomadic AI agents, capable of operating autonomously and flexibly, companies will have to prepare for a profound reorganization. The more autonomous these agents become, the more exponential the scale of this transformation will be."



Al nomads might manage to run niche agentic businesses with just a few employees, but complex businesses will continue to employ a large workforce.

So, will we see AI nomads? There are probably already some, on very niche ideas, maybe using trading agents or social media agents. Their time is likely consumed by their agent supervision, to make sure that nothing is going wrong. However, large companies have so many processes to manage that it is improbable that a single person, or even a small team, could effectively manage a multi-billion dollar business. That said, we can foresee that agentic processes could require less workforce in the long term. A striking example of this is Klarna, a Digital native company for payment services. Klarna's CEO declared that they stopped hiring a year ago and are relying on natural attrition to make workforce cost gains. To motivate its teams to self-reinvent their processes with AI, he told them that part of those gains would directly be reflected in their paychecks. As a result, in one year, the company's workforce shrank from 5000 down to 3500 employees, and they aim to reduce it further to 2000 employees (60% total workforce reduction). In the meantime, Klarna made a 17% increase in business volume. Through this example, we see that a fully digital business is aiming at a 60% workforce reduction while retaining 40% of its workforce to build, supervise and improve agents and handle non-agentic tasks. Other purely digital sectors, such as gaming, are also forecasting workforce reductions.





The consequence of this transformation is not that we're going to do the same thing with fewer people, but rather that we're going to be able to release more innovations more quickly"

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To conclude, we believe that large and complex businesses will never be managed by a handful of people. However, disruption will exponentially increase with Al's reasoning capabilities. Purely digital jobs (e.g., clerks, digital marketing campaign operators, software run engineers...) and purely machinery jobs (e.g., truck drivers) are most at risk. On the contrary, jobs that require empathetic human interactions or some deep expertise to build and supervise agents are likely to be preserved.

The main limitation of the upcoming agentic revolution will be the human need for agent trust and the control of both business and agentic processes. Environmental constraints on Al's expansion might also play an important role in attenuating the impact, as the costs of running agents may eventually surpass the human costs (although today, agentic costs keep going down).

Tomorrow's managers will probably measure their department sizes in terms of budget , people... and agents! Managers will be in charge of their agents' constant evoTomorrow's managers will probably measure their department sizes in terms of budget, people... and agents!

lution and quick adaptation to business changes. In large non-digital companies, we expect that the transition to Agentic AI will be less drastic on the workforce than in pure digital companies. Moreover, it will necessitate a lengthy quadruple transformation across Business Process, HR, IT and Data. Unless a company's sector is disrupted by a novel agentic native company, companies should find the time to gently shift their workforce towards agentic work with more pleasant and stimulating jobs.





The level of intelligence of the models determines the extent of the changes: a gradual reorganization with linear solutions, or deep and exponential if the agents gain autonomy."

Conclusion

Generative AI is profoundly redefining how we work, introducing tools capable of automating a wide range of tasks: code production, data analysis, content generation, and more. These tools do not replace human expertise but fundamentally alter its role. Experienced professionals engineers, analysts, creatives—become essential, not for executing tasks but for supervising, refining, and integrating the outputs produced by these technologies.

Industrial automation offers a concrete example to reflect on. Manufacturing goods in factories has become faster and less expensive thanks to technology. Many workers were replaced by robots on strenuous tasks, and moved to other economical sectors in growth. However, this has not fully replaced workers but rather transformed their roles: quality control, performance monitoring, and process management. At the same time, the demand for engineers capable of rethinking production lines and imagining new solutions has surged.

The same phenomenon is happening with automation in other sectors. It does not eliminate current jobs but evolves them, shifting value along two main axes:

- Supervising and optimizing: Skills to monitor and continuously improve automated systems.
- Rethinking models: Talent capable of integrating these technologies into a product or process vision that truly transforms how value is created.

Experienced professionals – engineers, analysts, creatives – become essential, not for executing tasks but for supervising, refining, and integrating the outputs produced by these technologies.

Simply adding a layer of automation to existing processes is not sufficient. There would be a high risk of making them more cumbersome without improving efficiency. The real challenge lies in rethinking these processes from the ground up, leveraging these tools to reinvent workflows and identify new productivity levers. Without this approach, the gains will remain marginal and fail to open up sustainable opportunities.

Automation does not eliminate jobs—it shifts the value while productivity stimulates growth. It is not the tools themselves that will transform organizations; it is the way they are integrated to rebuild the fundamentals. Those who successfully evolve their processes and talents around these technologies will not only take the lead but will redefine the rules of the game.



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