Reinventing business with automation

Digital business automation helps scale your operations, improve customer experiences and control costs

Highlights

- Apply automation to achieve digital transformation and improve customer experience

- Scale business operations to help make your organization more flexible and competitive

- Help produce better work in both back- and front-office activities with task and process automation, automated data capture, and more

Enterprise automation is not what it used to be

In both business and technology, automation now streamlines functions that only a short time ago seemed impossible to automate. More importantly, across business operations—from loan origination and patient care to regulatory compliance and customer service—it increases an organization's ability to scale and perform more work both faster and better without relying on additional employee headcount.

In fact, many organizations are moving from high-touch, manual processes to digital operations, and automation is evolving into something entirely new. Automation now incorporates a host of new tools, from artificial intelligence to robotic process automation. These tools are designed to improve employee productivity, enhance decision making and help optimize systems. As a result, automation is now a worthier investment for more of your work processes than ever before.

Along the way, automation expanded beyond simply achieving gains in cost and efficiency to encompass a customer-centric focus on improving each user's experience. Capabilities have expanded from handling rote automation of repetitive tasks to accommodating a broad range of work styles and scenarios enterprise-wide. It has learned to do more than follow prescribed processes.

This white paper provides an overview of how automation has changed as enterprises have transformed into digital organizations. It then examines which users these changes are affecting (virtually all of them) and why

these changes are a good thing (you get better work). It takes a deeper dive into how automation provides specific capabilities for specific business operations, from managing workflow to making real-time decisions. It concludes by introducing a fully integrated Digital Business Automation platform from IBM, which brings together key automation capabilities to enable enterprises to digitally transform their organization at scale.

Across industries, business reasons for automation are changing

Traditional use of business automation has helped reduce costs through greater efficiency, speed and consistency of operations. But in recent years there's been a rapid shift toward using automation to achieve an organization-wide digital transformation that can not only scale operations, but can also meet goals ranging from improving the customer experience to managing the supply chain workload.

A recent study of digital transformation leaders by Forrester Consulting revealed that cost reduction has slipped from the top-cited primary focus for process improvement to only the fourth-most-cited reason in only two years.[1] In the place of cost savings, digital transformation—followed closely by improving customer experience—has become the primary focus for business improvement.[1]

Also acknowledging the huge potential and growth of automation, the management consulting firm McKinsey & Company recently concluded that in 60 percent of occupations worldwide, up to 30 percent of activities can be automated.[2]

Automation now focuses on business growth and workload scale

Automation today is designed to increase the amount and quality of work an organization can handle. This becomes critical when headcounts may be static but the workload must scale

upward to accommodate offerings, customer demands and seasonal fluctuations. Remaining competitive, meanwhile, also demands scale, especially as other organizations in the same industry seek advantages by rolling out new customer experiences that are digitally—and easily—replicated many thousands of times using automated processes.

For the company that scales successfully, especially in industries that operate entirely digitally, such as online commerce or entertainment, the results can be astounding. The ability to scale operations with automation across these enterprises can increase the revenue per employee from hundreds of thousands to millions of dollars. In the process, quality often improves. In fact, in virtually any industry, the use of modern automation means that increased profitability and increased quality now go hand-in-hand.

Among its clients, IBM sees a close correlation between the growth of digital transformation and the benefits provided by automation.

- PNC Financial Services Group in the US experienced an 80 to 90 percent reduction in the number of loan applications requiring manual review when it automated business processes and rules.
- UK National Health Service Blood and Transplant automated more than 40 percent of its rigorous 96-step heart transplant allocation process in less than six months using a cloud-based automation solution.
- The Carlsberg Group-Denmark used automation to reduce the hours back-office personnel dedicate to processing orders by more than 90 percent, while virtually eliminating order errors.
- Ferservizi, a provider of back-office services to Italy's main railway operator, replaced manual operations with digital processing for more than 400,000 invoices and one million payslips annually.

Automation provides benefits across business operations

The business operations that are most commonly re-engineered to make use of digital technologies are those that support the customer experience. Forrester Consulting indicates, in fact, that based on its research, "digital transformation and customer experience are the primary focus of process improvement."[1]

But while automating front-office processes can improve external contact with customers and the partner ecosystem, automating back-office processes can also improve internal, non-client-facing tasks. The result is that, across industries, business operations benefit from the ability to scale that automation provides, including scenarios such as:

- Loan origination and servicing
- Policy underwriting and claims processing
- Regulatory and compliance management
- Patient care management
- Customer service
- Benefits and eligibility management
- Customer, employee and vendor onboarding
- Transportation and logistics management
- Fraud and risk management
- Trade finance

Integrated automation capabilities help produce better work

Successful organizations approach automation with an understanding of how people work, then apply that insight with the use of digital technologies. The ability to extract information from text, images or other unstructured content can be compared to the way the eyes gather information—and the ability to coordinate the different natures of repetitive work and knowledge work can be compared to how the central nervous system simultaneously handles diverse input.

The digital labor of workers, however, extends beyond the individual person's tasks to the huge volume of work and the range of work styles in the enterprise. Automating each style helps enterprises transform to accomplish more and do it better.

A useful way to approach transforming work is to structure automation around two basic characteristics: the volume and the uniqueness of work. High-volume work often is repetitive: tasks that are handled in similar manners thousands or even hundreds of thousands of times a day. Highly unique tasks are often one-off jobs: tasks that are fewer in number and that often require specialized activities.

Represented graphically, these characteristics become x- and y-axes, revealing five styles of work that organizations handle as volume and uniqueness increase. These work styles, and the benefits they can achieve from automation, include:
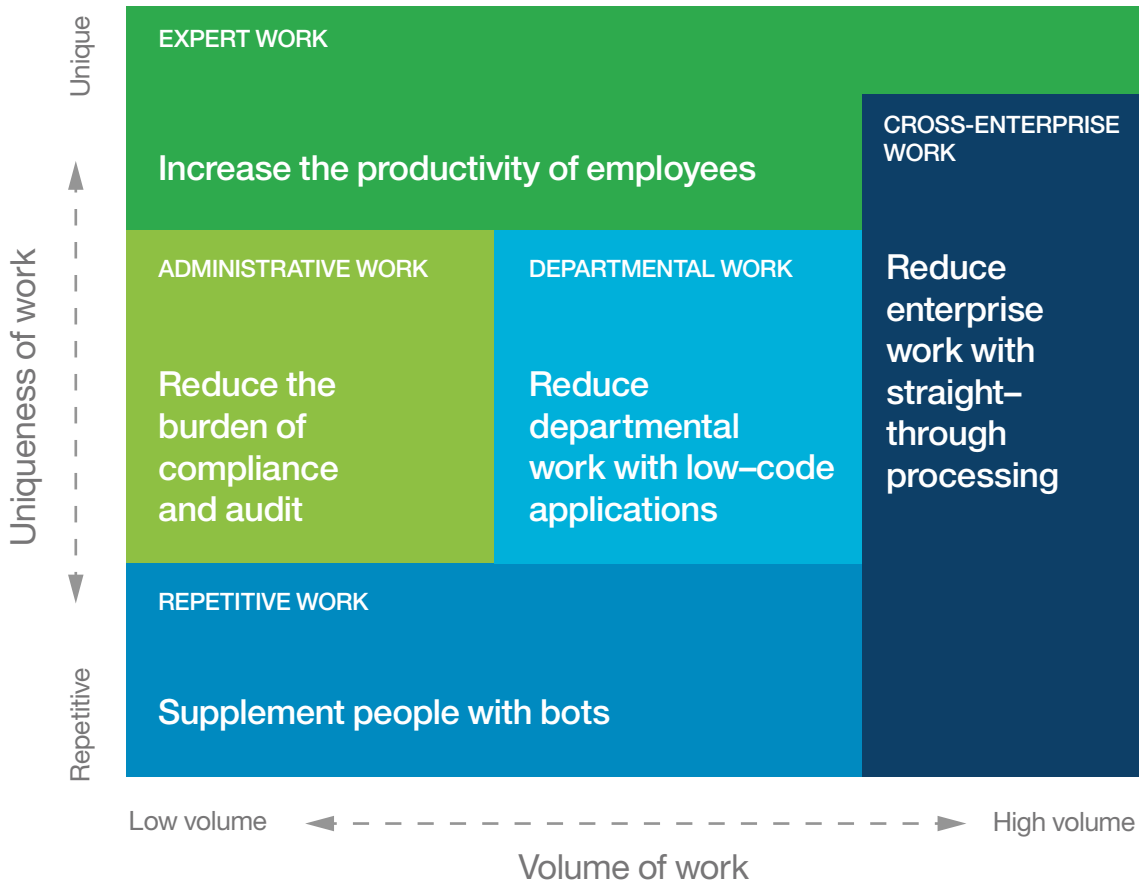
- **Repetitive:** This work requires little to no human judgment or finesse, but it is central to running a business. Whether routine tasks, such as processing invoices and payments, or basic decision making, such as determining whether an insurance policy includes any riders, routine tasks can be automated using bots that supplement employees and free them for other work.
- **Administrative:** This mid-spectrum work is typically low-volume and only moderately unique. It includes day-to-day tasks that occur in every business, such as reviewing and approving documents and policies—both processes that can be improved by automation. Components of other administrative tasks, such as following governance policies to help ensure regulatory compliance, can be automated as well.
- **Departmental:** This outgrowth of administrative work handles tasks that may be critical to a particular division but do not affect the entire organization. Because their work has a specific focus, employees often try to handle it by creating spreadsheets or using email for department-specific applications. Not only can automation provide a faster and easier way to handle the workload, it can help ensure consistency within the organization.

- **Cross-enterprise:** These tasks not only span work styles from high-volume to highly unique, they affect multiple other divisions in the organization. Work such as approving loan applications that engages multiple functions across the enterprise can also have a significant impact on profitability. However, the more unique they become, the more difficult and expensive they are to complete manually. Automation can help speed processing to achieve greater revenue.

- **Expert:** This category covers work that is typically the most highly skilled, most unique and most valuable an organization performs. But even expert work can be improved—as automation can increase productivity by collecting and interpreting data at a speed and scale that individuals could not physically handle on their own.

Ultimately, the goal of digital automation is to move everyone in the organization closer to the expert level by giving them enhanced capabilities and empowering them to use those capabilities more effectively.

Automation for every style of work

EXPERT WORK

Increase the productivity of employees

ADMINISTRATIVE WORK

Reduce the burden of compliance and audit

DEPARTMENTAL WORK

Reduce departmental work with low–code applications

CROSS-ENTERPRISE WORK

Reduce enterprise work with straight– through processing

REPETITIVE WORK

Supplement people with bots

Unique

Repetitive

Uniqueness of work

Low volume ◀ - - - - - - - - - - - - - - - ▶ High volume

Volume of work

By addressing and extending the capabilities of individual styles of work, automation can significantly improve operations across the entire enterprise.

Automation software delivers capabilities to transform work

Digitizing and automating business operations across the enterprise focuses on five key areas: tasks, content, workflow, decisions and data capture. All of these areas exist in every organization and can benefit from the combined power of the digital transformation and new capabilities for automation.

Tasks

Every organization conducts work that changes little over time or from project to project. These repetitive tasks, along with those that run in the background, such as account look up, are ripe for automation using software for robotic process automation. When software takes over this work, employees can move to higher-value work. Meanwhile, the repetitive tasks are accomplished faster—in some cases in as little as one minute rather than twenty—with an error rate that approaches zero.[3]

Content

A digitally savvy enterprise relies on content—both structured in databases and the rapidly growing volumes of unstructured content in business documents, photographs, email, audio and video files, and social media. All this data and information that is created must be managed, disseminated and stored. And each step in the content lifecycle may utilize a different component of automation. The same is true for how content is used. Tapping into previously unused data and promoting employee collaboration is the name of the game when putting business data to work. Ensuring information access, privacy and security are also primary concerns. Business automation can address all of these concerns.

Workflow

While a task focuses on a particular work item, and content defines the digital materials used in doing business, a workflow strings these steps together to create end-to-end processes. A loan application, for example, might involve dozens of steps, any one of which may be small and routine, but the end result of the workflow can deliver critical results to a customer. Automating steps in the workflow increases agility, visibility and consistency across hundreds of processes for smooth operations that benefit both the enterprise and the customer. It can also uncover patterns in workflows, products and services that can be improved.

Decisions

An enterprise makes thousands of operational decisions per day, but relatively few are based solely on personal judgement. Most involve detailed, repetitive work conducted according to enterprise policies or industry regulations, applying carefully honed business rules. These repeatable business decisions can be captured and automated to improve your responsiveness, minimize compliance risk and streamline workflow processes. And separating business rules from your applications provides the flexibility required to quickly respond to customers and changes in the marketplace.

Capture

The usefulness of content lies in the information it contains—but many organizations have so much content that they cannot find and extract the information they need. The challenge becomes greater over time, as companies rely not only on printed and digital text but also on video, audio, photographs and graphic images. Extracting information and insights from any and all of these can be critical to business success. Automating the capture of data from files at the point of entry into the enterprise extracts relevant information at a speed that is impossible for a human to achieve.
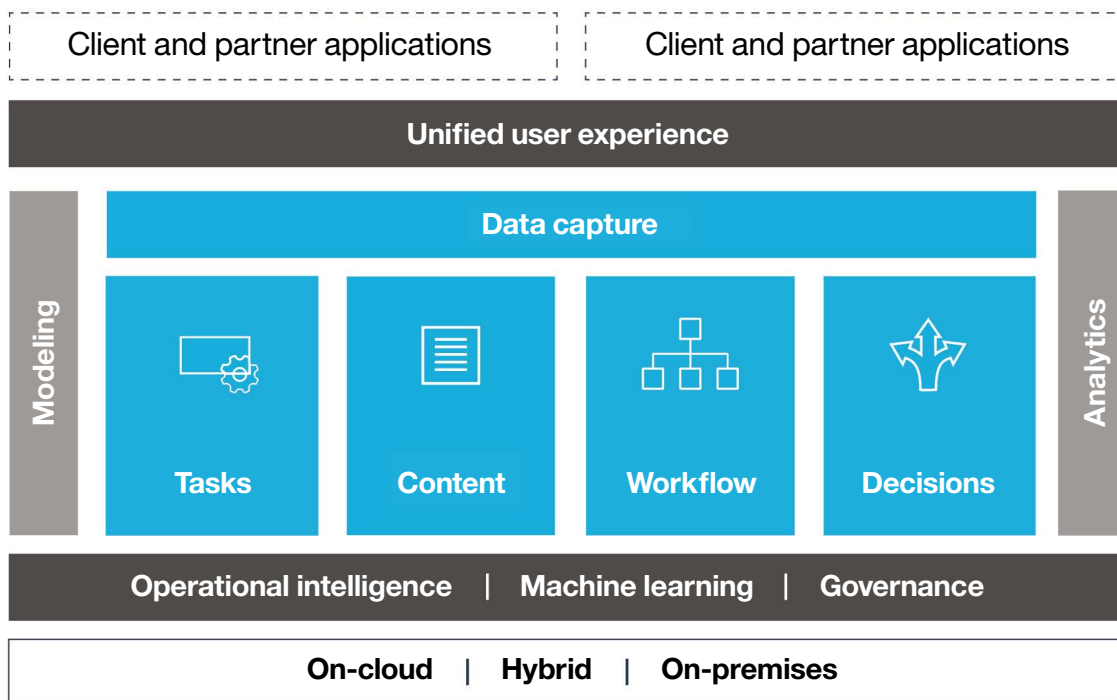
Introducing the IBM Digital Business Automation platform

The IBM approach to helping organizations achieve scale by automating digital business operations is to create an integrated software platform that allows organizations to digitize and coordinate multiple capabilities. IBM addresses each of the core areas where automation provides benefits—tasks, content, workflow, decisions and data capture—in a way that allows clients to use any one of these areas as an entry point into the platform's capabilities and to mix and match capabilities as needed, depending on the issues the company is facing.

With its integrated capabilities, the Digital Business Automation platform from IBM can coordinate new capabilities with the user's existing infrastructure—for example, data capture and content management for an insurance company's case management needs, searching files for relevant data, managing the business processes necessary for completing a claim and providing decisions based on company policies.

Business operations can be automated to complete steps without human intervention or to supplement the capabilities of employees. The goal: optimum efficiency, speed, accuracy, customer service and revenue, all at the scale necessary for success in today's competitive business environment.

The IBM Digital Business Automation platform

Client and partner applications	Client and partner applications

Unified user experience

Modeling	Data capture	Analytics
	Tasks · Content · Workflow · Decisions	

Operational intelligence | Machine learning | Governance

On-cloud | Hybrid | On-premises

The fully integrated Digital Business Automation platform from IBM is designed to increase employee productivity and make business operations more intelligent.

The integrated IBM platform provides significant advantages over point solutions for automation, including a unified user experience for consistency across operations, reusable skills and assets that users can share between platform offerings, and platform services that drive analytics and insight with operational intelligence.

Conclusion

Digitization is changing the nature of work, the workforce and, in the process, entire organizations. By adding automation as a key element of this transformation, companies can achieve significant benefits in the speed, accuracy and cost-effectiveness of their business operations. Importantly, they can achieve the scale of automation necessary to compete in today's business landscape—the ability to apply automation to any style of work, from rote, repetitive tasks to expert knowledge work. From extracting data from unstructured content to making policy-based decisions that help ensure regulatory compliance, modern approaches to automation extend far beyond saving on costs or lightening workloads. They help optimize the ratio of employees to revenue with an integrated platform that supplements and extends employee capabilities to work more effectively and help create a more competitive enterprise.

For more information

To learn more about the IBM Digital Business Automation platform, visit: ibm.biz/automation-platform

Additionally, IBM Global Financing provides numerous payment options to help you acquire the technology you need to grow your business. We provide full lifecycle management of IT products and services, from acquisition to disposition. For more information, visit: **ibm.com**/financing

[1] Forrester Consulting, "Process Excellence in The Digital Age Of The Customer: The Transition From Business Process Management to Digital Process Automation," a commissioned study conducted by Forrester Consulting on behalf of IBM, November 2017. https://www.ibm.com/marketing/iwm/dre/signup?source=urx-21833&S_PKG=ov62594

[2] McKinsey Global Institute, "Technology, jobs, and the future of work," McKinsey & Company, May 2017. https://www.mckinsey.com/global-themes/employment-and-growth/technology-jobs-and-the-future-of-work

[3] Based on IBM customer experience.

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