

# Adobe Acrobat AI Assistant: Transforming how knowledge workers interact with documents

## About this research

This report presents the findings of a research and benchmarking project conducted by Pfeiffer Consulting for Adobe. The main aim of the research was **to analyze and document the efficiency and productivity gains of Adobe Acrobat AI Assistant for knowledge workers**, compared to executing document-related processing tasks in key lines of business without the help of artificial intelligence.

Benchmarks were executed using *Pfeiffer Consulting's Methodology for Productivity Benchmarking*, which has been fine-tuned over more than a decade, and measures the time experienced operators take to execute specific tasks. Please refer to the Methodology section on the last page of this document for more information.

## About Adobe Acrobat AI Assistant

Acrobat AI Assistant is a recent addition to the Acrobat feature-set. It allows knowledge workers to execute a variety of document-related tasks with the help of a conversational AI interface. AI Assistant analyzes one or several document, and is able **to provide insights based** on the content, it can also **answer questions, retrieve and organize specific information, compare documents**, as well as **compose texts** based on a document in a variety of styles.

In benchmarks for this research, based on 16 different typical knowledge worker tasks, **Acrobat AI Assistant was on average almost four times faster** than traditional methods, and for complex assignments, such as summarizing a company's complex safety protocols, it **saved almost two hours**.

## Key benchmark results: Average of 16 workflow benchmarks

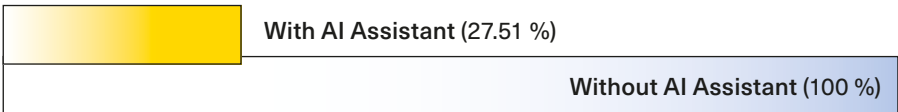


Chart based on the average of 16 different sets of workflow benchmarks.  
A total of 154 individual benchmark measures were taken.  
Reference value: Average time when working with other workflows. **Shorter is better.**

## Executive summary

- This report presents the findings of a research and benchmarking project designed to **measure the impact of AI Assistant on the productivity of knowledge workers**.
- **16 real-world workflow scenarios** in five key lines of business were benchmarked. In one benchmark, a task that **would have taken well over two hours could be completed in just 40 minutes**. (See chart page 8.)
- AI Assistant is very versatile, and can be used for a great variety of tasks ranging from **text summarization** and **document analysis** to assistance with **structuring a desired content** and **composition of texts** in a variety of styles.
- AI Assistant **provides a secure environment** even when working with sensitive documents **since data for processing are encrypted and stored only temporarily**.
- Using **AI Assistant can reduce the time knowledge workers spend on tedious and time-consuming tasks**, and free up time, concentration and creativity for higher value aspects of a project. In our benchmarks, **time-savings ranged from 14 minutes for a simple task, to close to two hours for a complex assignment**.

# How Acrobat AI Assistant accelerates knowledge work

## What is it like to work with documents?

All knowledge workers have one thing in common: **they have to create meaningful new content based on the information at their disposal.** Whether one works in marketing, legal services, human resources or finance, and however different these fields may be in terms of specialized expertise, a significant part of the work that needs to be done depends on extracting information from documents and processing it.

Interestingly, once one strips away domain-specific aspects, it turns out that most if not all document-related work **follows a common path, and presents similar challenges.** (See table below.)

## Bottlenecks in knowledge workflows

What, apart from experience and acquired knowledge, is the most important underlying factor when working with documents? What are the most important resources for a knowledge worker? Simple: **Focus and concentration.** If these factors are beginning to run low, it becomes extremely challenging to produce good work. Each individual phase in

## Major points

- Most knowledge workers **face common bottlenecks in their workflow** that slow down work and reduce productivity and efficiency.
- **Knowledge work requires focus and concentration.** Many common tasks, such as extracting important information from a document **are time-consuming, repetitive, and error-prone.**
- Using AI Assistant can speed up these tasks, and **free up energy and concentration for more creative and higher value aspects** of a job.

## Bottlenecks in document-related knowledge workflows

|            | Task Scoping                                                                                                                                                                                                            | Analysis                                                                                                                                                                                                      | Structure                                                                                                                                                                                                        | Produce                                                                                                                                                                                                                                             |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tasks      | <ul style="list-style-type: none"><li>• Knowledge work can be defined as <b>extracting meaning from information.</b></li><li>• Concrete tasks <b>vary significantly</b> between different fields of activity.</li></ul> | <ul style="list-style-type: none"><li>• <b>Analyzing and understanding</b> the available data and document(s) is necessary in order to <b>zero in on the information</b> that needs to be produced.</li></ul> | <ul style="list-style-type: none"><li>• <b>Outlining the target content</b> based on the key information collected during analysis <b>is essential for producing a well-structured final document.</b></li></ul> | <ul style="list-style-type: none"><li>• Different <b>types of content</b> have different <b>requirements.</b></li><li>• Frequently, content needs to be <b>produced in several different formats</b> (report, presentation, e-mail, etc.)</li></ul> |
| Challenges | <ul style="list-style-type: none"><li>• Presented with a concrete task, the first step is to <b>define the appropriate methodology</b>, based on experience and tools available.</li></ul>                              | <ul style="list-style-type: none"><li>• Depending on the task, this phase requires <b>understanding of the subject matter</b> and strong <b>analytical capacities.</b></li></ul>                              | <ul style="list-style-type: none"><li>• <b>Time constraints</b> as well as <b>loss of focus and/or concentration</b> can be challenging.</li></ul>                                                               | <ul style="list-style-type: none"><li>• Producing the same content for different modes of presentation <b>requires mental flexibility and experience.</b></li></ul>                                                                                 |

*Despite the diversity of knowledge work, most document workflows follow a common path from task definition to output production. While challenges vary at each stage, the unifying factor is the critical need for sustained focus and concentration throughout the process.*

the knowledge workflow requires these mental faculties, even if they may express themselves differently depending on the field of work. Reading a complex financial report requires a different kind of concentration and mental agility than writing a blog-post or summarizing product brochures, yet **all these activities result in significant cognitive load** that can reduce the ability to produce quality output. Or, to put it more bluntly: Knowledge work can be cognitively exhausting—in fact, in each of the workflow phases outlined in the previous table, **the key challenges are related to factors that impact sustained attention.**

### How AI is transforming knowledge work

The arrival of AI, and more specifically large language models (LLMs) and their application in tools such as AI Assistant, **is profoundly transforming the way knowledge workers do their job**, not because they replace their core competencies, but because these tools can alleviate many of the factors that slow down working with documents.

In practical terms, this means that fastidious aspects such as analyzing a complex document are accelerated, **thus liberating focus and concentration for the tasks which really matter**, namely putting the unique knowledge and experience of the knowledge worker to use where it is the most needed. More importantly, **these tools have acquired an astonishing versatility**, as we will discuss in the following sections of this report.

In other words, the most important point concerning the new AI tools is **to use them as a complement for human intelligence and creativity, not as a replacement.** LLMs can make mistakes, and AI Assistant rightfully insists to double-check its output. On the other hand, if they are used the right way, they can significantly reduce some of the drudgery of knowledge work. And by doing so, **they free up concentration and human creativity to focus on higher value work.**

### What happens to the data?

Since large language models arrived on the market in late 2022, there has been growing concern about how user data is handled within these systems. Often, both the data itself and user interactions with the system are subsequently employed to refine and improve the models themselves. Unsurprisingly, **this is a serious concern for businesses and professional users** who require confidentiality.

However, AI Assistant is different. According to Adobe, while documents and requests are processed in the cloud, **data for processing are encrypted and stored only temporarily.** None of the data or user interactions are used for training the model. This means that **AI Assistant provides a secure environment** even when working with sensitive documents. Since **AI Assistant only works on documents selected by the user, the data governance risk is relatively lower** compared to AI solutions that automatically crawl through the company's files.

[Adobe's security fact sheet for AI Assistant](#)

### Key benefits of AI Assistant

|                                             | Without AI Assistant                                                                                                                                                                                                                  | With AI Assistant                                                                                                                                                                                                                          |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fact finding (single or multiple documents) | <ul style="list-style-type: none"><li>Efficiency in locating salient points in documents <b>is dependent on experience and familiarity with the document</b> and its structure, and can be time-consuming.</li></ul>                  | <ul style="list-style-type: none"><li>Information can be retrieved in seconds, and the system is able to <b>compile and compare different facts contained in a single or multiple document.</b></li></ul>                                  |
| Text analysis                               | <ul style="list-style-type: none"><li>Text analysis <b>requires concentration and focus, and can take considerable time</b>, especially with unfamiliar documents.</li></ul>                                                          | <ul style="list-style-type: none"><li>AI Assistant <b>automatically suggests questions regarding a document</b>, and allows the user to query the document about its content.</li></ul>                                                    |
| Summarization/ comparison                   | <ul style="list-style-type: none"><li>Efficiently summarizing or comparing texts <b>requires specific analysis and writing skills</b>, and working with long documents requires <b>significant focus and concentration.</b></li></ul> | <ul style="list-style-type: none"><li><b>Multiple documents as well as complex documents can be summarized in seconds</b>, producing a detailed outline and a list of all key points. <b>Multiple documents can be compared.</b></li></ul> |
| Organization of information                 | <ul style="list-style-type: none"><li>Structuring and organizing information <b>requires familiarity with the subject matter</b>, as well as experience and concentration.</li></ul>                                                  | <ul style="list-style-type: none"><li><b>Structuring information with AI Assistant is easy</b>, It can suggest ways of organizing the information for a specific medium, such as a blog-post, a presentation or a legal brief.</li></ul>   |
| Writing assistance                          | <ul style="list-style-type: none"><li>Writing abilities are largely dependent on the skills of the person producing a text. <b>Writing well-formed text can be challenging, especially under time-pressure.</b></li></ul>             | <ul style="list-style-type: none"><li><b>Text in different writing styles</b> or formats can be generated in seconds, and can help <b>kick-start the creative writing process.</b></li></ul>                                               |

*The key benefits of AI Assistant can be categorized into five distinct groups, from fact-finding to writing assistance. Beyond these specific use cases, the versatility of AI Assistant has the potential to significantly transform how knowledge workers interact with documents and structure their workflows, leading to increased efficiency and productivity.*

# New productivity dimensions for document workflows

## About the benchmarks

In order to properly assess the productivity gains of AI Assistant, we selected **16 different workflow scenarios**, ranging from text summarization of a 3-page press release to the production of a 600-word blog-post discussing a 3000-word article in a tech journal.

We also benchmarked **typical applications for five key lines of business**: Human Resources, Legal & Compliance, Marketing & Communications, Finance, and Research & Development. For each workflow scenario, we created **a detailed list of all the steps** a knowledge worker typically undertakes to achieve the desired outcome, **measured in groups of small, individual steps**.

Using AI Assistant, we measured the time required to **write and refine the prompts** necessary to achieve the desired result. Additionally, we assessed the time taken to **double-check each individual output** generated by AI Assistant, as well as the **time to edit and finalize the results** in a word processor or presentation program. On average, **AI Assistant was almost four times faster** in these benchmarks.

## Major points

- Benchmarks for this research **covered 16 real-world workflow situations in five key lines of business**.
- Benchmarks show that, depending on the complexity of the task, **AI Assistant can save knowledge workers hours**, and significantly reduce time-consuming and tiring tasks.
- On average, based on all benchmarks executed, **working with AI Assistant was almost four times faster** than working with traditional methods.

## How AI Assistant speeds up core knowledge worker tasks

|              | Task Scoping                                                                                                                                                                                                                                                 | Analysis                                                                                                                                                                                                                                                                                                                                                    | Structure                                                                                                                                                                                                                                                                                          | Produce                                                                                                                                                                                                                                                                                                                            |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Task         | Define appropriate approach                                                                                                                                                                                                                                  | Analyze document, highlight key information                                                                                                                                                                                                                                                                                                                 | Define precise structure for required output(s)                                                                                                                                                                                                                                                    | Produce required texts and/or other output(s)                                                                                                                                                                                                                                                                                      |
| AI Assistant | <ul style="list-style-type: none"><li>• Quickly generates <b>concise summaries</b> to aid in the initial stages of document creation.</li><li>• Provides guidance by <b>recommending structure suggestions</b> or outlines for the desired output.</li></ul> | <ul style="list-style-type: none"><li>• <b>Accelerates document analysis</b> and automatically generate essential questions.</li><li>• <b>Extracts crucial information</b> without the need for reading the entire document, <b>saving substantial time</b> through the use of detailed prompts.</li><li>• Can <b>compare multiple documents</b>.</li></ul> | <ul style="list-style-type: none"><li>• Significantly speeds up the process of <b>organizing and structuring documents</b></li><li>• Quickly provides <b>suggestions for structuring a wide range of output formats</b>, such as research reports, blog posts, and social media content.</li></ul> | <ul style="list-style-type: none"><li>• <b>Generates full-length texts</b>, including press releases, research reports, or blog posts, in a matter of seconds.</li><li>• Streamlines the editing process by leveraging <b>AI Assistant's ability to rephrase short text passages</b> directly within the chat interface.</li></ul> |

A key aspect of AI Assistant is its usefulness throughout the entire lifecycle of a document-related project. It can extract and summarize information, accelerate data acquisition, highlight important points, compare documents, assist in structuring the desired output, and even compose texts in a variety of styles.

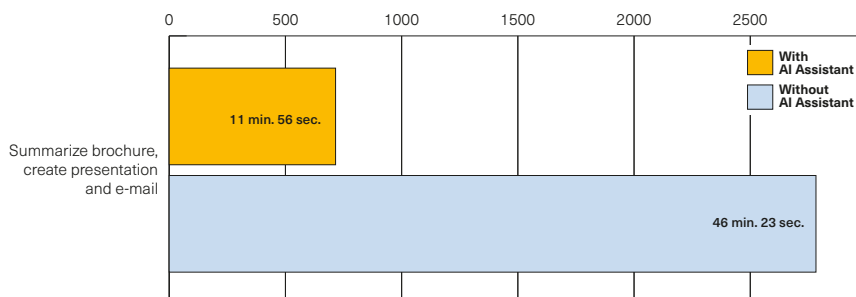
## Key benchmark figures:

### The productivity impact of AI Assistant on core knowledge worker tasks

**Sales:** This benchmark consisted of measuring the time necessary to summarize a product brochure, create a short presentation with key points, and summarize the findings in an e-mail for clients. With AI Assistant, the benchmarks included double-checking all the data, creating the bullet points for the presentation, and composing the e-mail, which were then edited and finalized manually. **With AI Assistant, the complete workflow took under 12 minutes,** compared to 46 minutes using the traditional method.

#### AI Assistant benchmarks: Sales

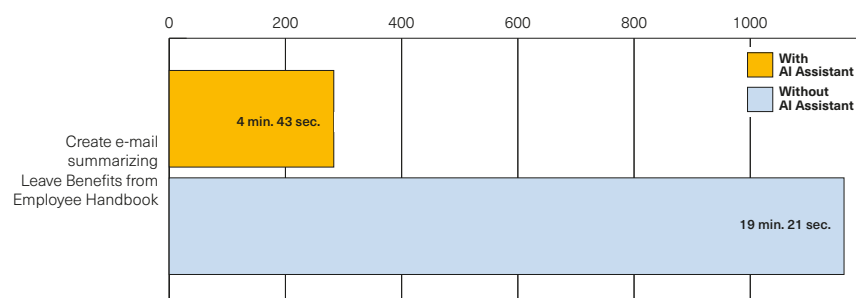
Time-scale in seconds. Shorter is better.



**Human Resources:** The benchmark for human resources consisted of creating an e-mail for a co-worker who inquired about Leave Benefits provided by the company. This included highlighting and extracting the relevant information in the company's Employee Handbook, and composing the e-mail. Using AI Assistant, the whole sequence, including double-checking the data and final editing, **could be completed in under five minutes, compared to almost 20 minutes without the help of AI Assistant.**

#### AI Assistant benchmarks: Human Resources

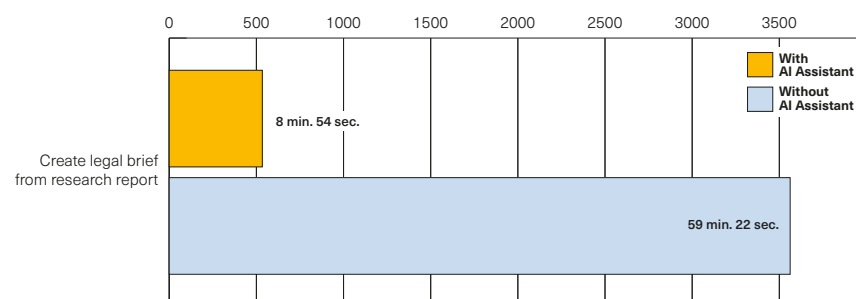
Time-scale in seconds. Shorter is better.



**Legal:** This benchmark measured the time necessary to read a report from the Congressional Research Service, and to compile a legal brief including key findings and case references cited in the document. Using traditional methods (reading and highlighting the relevant information, as well as structuring and writing the legal brief) took almost an hour. **With the help of AI Assistant, creating the legal brief required only 15% of the time using traditional methods,** including double-checking the data and editing the brief using a word processor.

#### AI Assistant benchmarks: Legal

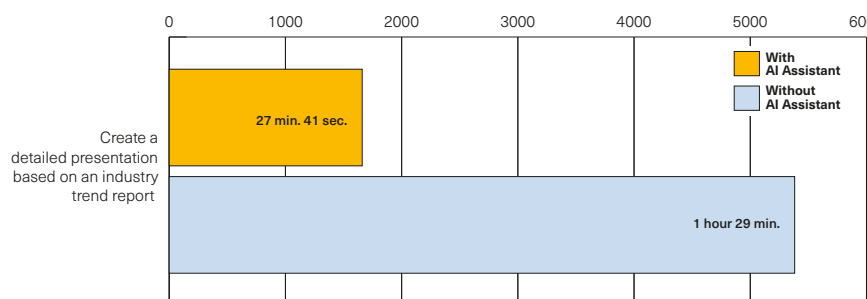
Time-scale in seconds. Shorter is better.



**Research & Development:** For this benchmark, we measured the time necessary to create a detailed presentation based on an industry trend report. This included reading the report, highlighting and extracting key information, and creating the presentation, which took almost an hour and a half. Using AI Assistant to summarize the document, and to generate the bullet points for the slides, **creating the presentation took under half an hour,** and included double-checking the information, editing and formatting the slides.

#### AI Assistant benchmarks: Research & Development

Time-scale in seconds. Shorter is better.



# How AI Assistant adapts to different professional requirements

## What AI Assistant brings to different workflows

Acrobat users can access the AI functionality in two ways: by clicking on the **AI Assistant button** or by using the **Summarization tool**. The Summarization tool summarizes the content of a document in a structured way. In contrast, invoking AI Assistant **analyzes the document and provides suggestions and questions**. At this point, users can interact with the system by typing a prompt with a specific request.

**One of the most remarkable aspects of AI Assistant, though not immediately obvious, is its versatility.** Using the chat interface initiates a dialogue with the system, which extends beyond simply extracting information. AI Assistant can answer questions, structure and compose various texts, including press releases, bullet points for charts, emails, social media posts, and more. It can provide a structural outline for a blog post or research report and generate an initial draft.

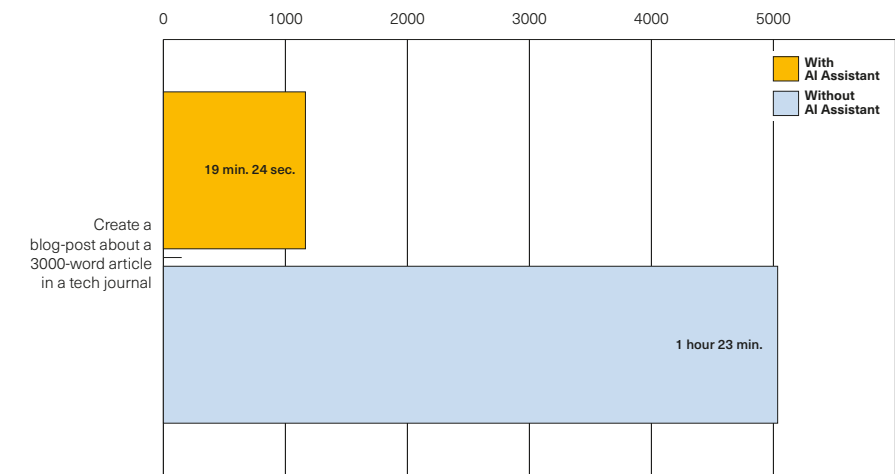
Additionally, **AI Assistant can work with multiple open documents**, allowing, for instance, a sales team to use a marketing document alongside a customer company's annual report and **use insights from these documents to create a comprehensive pitch deck** with new service offers, tailored to the specific needs and context of the potential client.

## Major points

- **AI Assistant is extremely versatile** and can prove useful for occasional, non-specialized users as much as for seasoned experts in a highly specialized field.
- AI Assistant can be used to **analyze documents, compare product sheets, provide structure suggestions** for the desired output, and also produce **initial drafts of text**.
- In our benchmarks, we managed to **produce a blog-post using AI Assistant in under 20 minutes**, compared to almost an hour and a half. (See chart below.)

### AI Assistant benchmarks: Marketing

Time-scale in seconds. Shorter is better.



*For this benchmark, we performed all the steps required to structure and write a 600-word blog post based on a 3000-word article from a tech journal. For the traditional workflow, we read the article, highlighted key points, then structured and wrote the blog post. When using AI Assistant, we requested a summary of the article, a suggested structure, and then instructed AI Assistant to compose a first draft of the blog post. This draft was subsequently edited in a word processor to ensure coherence with the blog's overall style.*

Looking at this potential from a different angle, it also means that **AI Assistant can easily adapt to specific needs and requirements**. For this research, we identified **four distinct user profiles**, and analyzed the different ways in which AI Assistant can make them more efficient. On one level, we **distinguished between casual and heavy users**, in other words, those who will need AI Assistant on an occasional basis, and those knowledge workers who spend a significant portion of their work analyzing and processing documents.

Then there is the level of specialization:

**Non-specialized users** have to work with a variety of documents. In human resources, for instance, a person will have to deal with resumes, employee records, and policy documents, as well as many other types of documents.

**Specialized users** in fields such as legal, on the other hand, will predominantly work with certain types of documents such as contracts, wills and trusts, or litigation documents, among others.

## Adapting the use of AI Assistant

This inherent versatility of AI Assistant makes it **a highly effective tool across a diverse range of applications, use cases, and domains**. In the table below, we have listed some of the ways in which different types of knowledge workers can benefit from the use of AI Assistant.

However, to make most of the system it is essential to realize that **AI Assistant is fundamentally different from the way software usually works**. It doesn't offer a fixed set of features one triggers to obtain a pre-determined result; rather it invites the user to interact.

**Using AI Assistant is like entering in a dialogue with the document one is working on**. The key is to formulate precisely what one needs—and these needs can differ greatly between different types of users.

## Checking the data

Large language models can make mistakes, and sometimes produce data that don't actually exist in the analyzed documents. Indeed, AI Assistant specifically warns about this fact, and **recommends strongly to double-check responses and sources**.

This step is indeed essential when working with any LLM. Fortunately, **AI Assistant offers a distinct advantage in this process**: The system presents attributions that hyperlink to the source of the responses provided. Clicking on a link **immediately highlights the section of the document on which the answer is based**, making it easy to double-check information. (It goes without saying that all benchmarks for this research included this operation.)

## How AI Assistant impacts different user profiles

|                                  | Type of knowledge worker                                                                                                                                                                                                                                                                                            | What AI Assistant can provide                                                                                                                                                                                                                                        |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Occasional non-specialized users | <ul style="list-style-type: none"> <li><b>Paralegals</b> searching for specific clauses in contracts; <b>Research Assistants</b> summarizing scientific articles; <b>HR assistants</b>; <b>Accounts Payable Clerks</b>, for example.</li> </ul>                                                                     | <ul style="list-style-type: none"> <li>Even for users who interact with AI Assistant infrequently, the system <b>can be very useful for simple tasks</b> such as swiftly extracting product information or suggesting key points and questions.</li> </ul>           |
| Heavy non-specialized users      | <ul style="list-style-type: none"> <li><b>HR Generalists</b> summarizing employee performance reviews; <b>R&amp;D Engineers</b> comparing technical specifications across product manuals, as well as <b>Content Creators</b>; <b>Market Researchers</b> or <b>Recruiters</b>, among others.</li> </ul>             | <ul style="list-style-type: none"> <li>For users working with a large number of different documents, <b>AI Assistant can significantly reduce the time spent on repetitive tasks</b> such as information analysis and processing, or comparing documents.</li> </ul> |
| Occasional specialized users     | <ul style="list-style-type: none"> <li><b>Auditors</b>; <b>Content Marketers</b> creating different variations for ad copy; <b>Patent Attorneys</b> analyzing patent applications; <b>Tax Consultants</b>, or <b>Contract Managers</b>, and many others.</li> </ul>                                                 | <ul style="list-style-type: none"> <li>AI Assistant can <b>significantly enhance the speed of complex tasks</b> involving specialized material. Its ability to understand natural language makes querying documents straightforward.</li> </ul>                      |
| Heavy specialized users          | <ul style="list-style-type: none"> <li><b>Financial Analysts</b> reviewing annual reports; <b>HR Data Analysts</b>; <b>Contract Attorneys</b> drafting and reviewing complex legal agreements; <b>Marketing Strategists</b> conducting brand analysis, or <b>Senior Research Scientists</b>, for example</li> </ul> | <ul style="list-style-type: none"> <li>The capability of AI Assistant to <b>not only retrieve information but also generate sophisticated texts</b> from the content of a document can greatly accelerate time-intensive specialized tasks.</li> </ul>               |

*Due to its versatility, AI Assistant can benefit various workflow scenarios. For occasional users with limited expertise, it can efficiently extract key information from documents, saving them time spent on in-depth manual review. Specialized users can leverage AI Assistant for tasks like identifying specific data points, performing comparisons or compilations, structuring documents, and even composing complete texts.*

# Key lines of business for AI Assistant

## Who is AI Assistant for?

It is fair to assume that **most knowledge workers using PDF documents will find AI Assistant immediately useful**. From students to academic researchers to bloggers or social media professionals, most people working with documents can benefit from the variety of services AI Assistant can provide.

However, for this study, we also aimed to examine the benefits and productivity gains that AI Assistant can offer across different lines of business with a sustained demand for document processing, where **groups of knowledge workers have similar needs in terms of information retrieval and content production**.

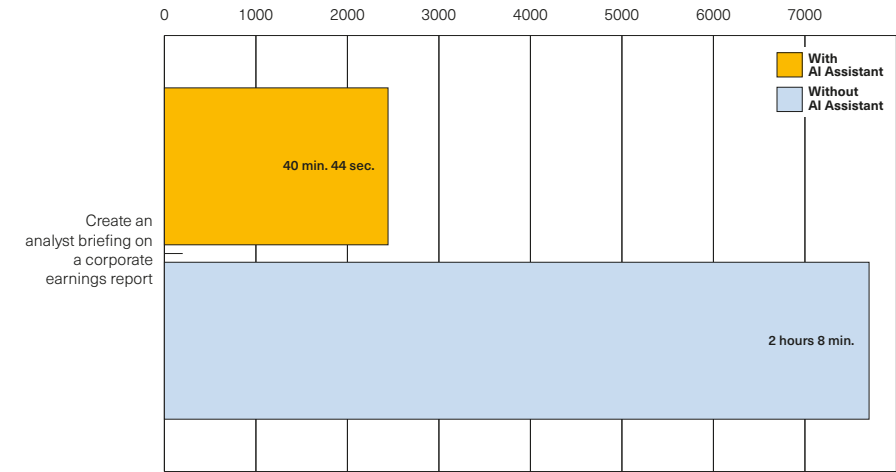
To this end, we focused our research and benchmarks on **five distinct lines of business: Human Resources, Legal & Compliance, Marketing & Communications, Finance, and Research & Development**. This approach provided us with a broad spectrum of possible use cases and distinctly different needs. Consequently, we had **to assess the efficiency of AI Assistant with documents of varying lengths and complexities**, ranging from press releases and product brochures to official regulatory documents and corporate annual reports spanning a hundred pages and filled with complex tables.

## Major points

- This research and benchmarking project **focussed on the needs of five key lines of business**, Human Resources, Legal & Compliance, Marketing & Communications, Finance, and Research & Development.
- AI Assistant can **increase productivity and provide valuable help in many different ways**.
- The cumulative effect of frequently occurring small productivity gains **can save hours if not days over time, and provide significant return on investment**.

## AI Assistant benchmarks: Finance

Time-scale in seconds. Shorter is better.



For this benchmark, we measured the typical steps a financial analyst follows when preparing a briefing: reviewing the earnings report and highlighting key data such as revenue growth, profitability, and earnings per share. The second part of the benchmark involved structuring the analyst briefing, extracting key data from the earnings report, writing, and finalizing the document. We performed similar steps with AI Assistant, including double-checking all information extracted by the system, transferring it to a word processor, and conducting final edits and formatting.

## How AI Assistant productivity gains scale with the number of users

| Operation                       | Size of team | Number of Occurrences (Time Saved) |                  |                        |                         |
|---------------------------------|--------------|------------------------------------|------------------|------------------------|-------------------------|
|                                 |              | 1                                  | 5                | 10                     | 20                      |
| Summarize simple document       | 1            | 04 min. 53 sec.                    | 24 min. 24 sec.  | 48 min. 47 sec.        | 1 hour 37 min.          |
|                                 | 5            | 24 min. 24 sec.                    | 2 hours 01 min.  | 4 hours 03 min.        | 8 hours 07 min.         |
|                                 | 10           | 48 min. 47 sec.                    | 4 hours 03 min.  | 8 hours 07 min.        | 16 hours 15 min.        |
| Compare two product fact sheets | 1            | 19 min. 42 sec.                    | 1 hour 38 min.   | 3 hours 16 min.        | 6 hours 33 min.         |
|                                 | 5            | 1 hour 38 min.                     | 8 hours 12 min.  | 16 hours 24 min.       | 2 days 8 hours 49 min.  |
|                                 | 10           | 3 hours 16 min.                    | 16 hours 24 min. | 2 days 8 hours 49 min. | 3 days 17 hours 39 min. |

Even relatively insignificant time saving can scale considerably as the number of users and occurrences increases. For this table, we selected two very simple use-cases for AI Assistant, summarizing a short document, as well as comparing two product fact sheets. Even these relatively small productivity gains can save hours or days for teams.

In the table below, we outline some of the possible use-cases for these lines of business, many of which have been covered in the sixteen different workflow scenarios benchmarked for this report.

### The question of business-wide benefits

The other dimension we wanted to explore in the context of these different lines of business is **the question of team productivity**, and implicitly also the question of **overall return on investment, or ROI**.

One thing to point out regarding productivity benchmarks is that a common mistake when analyzing productivity data is **to focus solely on the gains of a single operation**. It is important to recognize that these saved minutes or seconds scale linearly, meaning that **cumulative small productivity gains can significantly increase over time**. In other words, even operations that save only a few minutes can have a substantial impact on team productivity, not just complex operations that save hours, as the table above demonstrates.

## Benefits of AI Assistant for key lines of business

| Human Resources                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Legal & Compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Marketing & Communications                                                                                                                                                                                                                                                                                                                                                                                                         | Finance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Research & Development                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Efficiency:</b><br>Quickly parse and extract data from PDFs such as resumes, employee records, and policy documents, reducing manual entry and processing times.<br><b>Accuracy:</b><br>Minimize human errors in data extraction and processing.<br><b>Customized Summaries:</b><br>Generate summaries and insights from PDF contents, easing document review.<br><b>Cost Reduction:</b><br>Reduce labor costs by accelerating routine document management tasks. | <b>Enhanced Due Diligence:</b><br>Streamline document review by speeding up information extraction from contracts, agreements, and other legal documents.<br><b>Improved Regulatory Compliance:</b><br>Ensure adherence to regulations by facilitating faster identification of relevant clauses and terms within PDFs.<br><b>Productivity for Legal Teams:</b><br>Free up legal professionals' time from tedious document review tasks, and help researching and comparing similar or related cases. | <b>Streamlined Content Creation:</b><br>Generate summaries, talking points, social media content as well as complete texts from marketing materials and reports.<br><b>Efficient Market Research:</b><br>Extract key data and insights from competitor marketing materials and industry reports.<br><b>Enhanced Campaign Targeting:</b><br>Identify target audience preferences by analyzing customer data and feedback documents. | <b>Efficient Document Processing:</b><br>Speed up the extraction of data from financial documents like reports, statements, and contracts, saving time and reducing manual effort.<br><b>Improved Regulatory Compliance:</b><br>Facilitate faster identification of regulatory requirements within complex financial documents<br><b>Greater Productivity for Financial Teams:</b><br>Free up time for financial professionals by accelerating data extraction and report summarization. | <b>Improved Research Efficiency:</b><br>Free up valuable time for researchers by automating repetitive tasks like information extraction and document summarization.<br><b>Idea Generation:</b><br>Help generate hypotheses and research questions based on research documents.<br><b>Development Efficiency:</b><br>Reduce the time spent on manual document review, allowing researchers to focus more on experimentation and less on administrative tasks. |

## Methodology

**This benchmark project was commissioned by Adobe and independently executed by Pfeiffer Consulting.**

All the productivity measures presented in this document are based on real-world workflow examples, designed and executed by professionals with many years of experience with the programs and workflows involved.

### How we measure productivity

The basic approach is simple: in order to assess productivity gains that a program or solution may (or may not) bring, we start by analyzing the minimum number of steps necessary to achieve a given result in each of the applications or workflows that have to be compared.

Once this list of actions has been clearly established, we start to execute the operation or workflow in each solution, with the help of seasoned professionals who have long-standing experience in the field and with the solutions that are tested.

### Benchmarking AI Assistant

In order to properly assess the productivity gains AI Assistant can bring, we selected **16 different workflow situations**, ranging from text summarization of a 3-page press release to the production of a blog-post based on a 3000-word article in a tech journal.

We also benchmarked **typical applications for five key lines of business**: Human Resources, Legal & Compliance, Marketing & Communications, Finance, and Research & Development.

For each workflow scenario, we **defined a detailed list of all the steps a knowledge worker normally has to go through** to produce a desired outcome; these were then **measured in groups of small individual steps**.

For the benchmark involving creating a blog-post, for instance, we completed all the steps necessary for structuring and writing a 600-word blog-post discussing a 3000-word article from a tech journal. For the **traditional workflow**, this consisted in reading the article and highlighting key points, then structuring and writing the blog post the traditional way. **Working with AI Assistant**, we wrote a prompt for a summary of the article, followed by a request for a structure-suggestion for the blog-post, and then instructed AI Assistant to compose a first draft of the blog-post itself. This text was then edited in a word processor to make sure it was coherent with the overall style of the blog.

More generally, for the benchmarks of AI Assistant, we measured the time required to **write and refine the prompts** necessary to produce the right outcome; we also measured the time necessary to **double-check each individual result** produced by AI Assistant, as well as the time to **edit and finalize the results** in a word-processor or presentation program.

### About Pfeiffer Consulting

Pfeiffer Consulting is an independent technology research and benchmarking operation focused on the needs of publishing, digital content production, and new media professionals.

For more information, please contact [research@pfeifferreport.com](mailto:research@pfeifferreport.com)

## Pfeiffer Report

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