

PRACTICAL USES OF AI

HOW TO IMPROVE PERFORMANCE



matchcraft

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"...technology is often overestimated in the short run. But drastically underestimated in the long run.

I think we're at that inflection point where AI is going to change everything."

Brendan King,
CEO of Vendasta

Practical Uses of AI: How to Improve Performance

In May, MatchCraft had the privilege of attending **Siinda Berlin Live**, where we joined forces with Vendasta to explore the powerful ways AI can revolutionize company operations. We are excited to unveil our findings and offer key insights on the adoption of AI, showcasing its ability to enhance efficiency, drive cost reduction, and fuel unprecedented growth for businesses.

The Accelerating Growth of AI: By The Numbers

Over the past decade, AI has been discussed extensively; however, its impact has often been overestimated in the short term and underestimated in the long run. The current AI boom signifies a pivotal moment where AI is poised to revolutionize every aspect of our lives. Comparisons with the rapid adoption rates of personal computers, the internet, and mobile phones provide further evidence of AI's accelerated growth trajectory.

"AI spending worldwide will increase to \$154 billion this year. That's a jump of over \$30 billion year-over-year.

It's poised to surpass \$300 billion by 2026.
AI is not the future—it's now."

Sandy Lohr,
CEO of MatchCraft



Global spending on AI is set to skyrocket this year, reaching an impressive \$154 billion, marking a staggering year-over-year increase of over \$30 billion. This exponential growth is a testament to the increasing significance of AI in today's world. As businesses across various industries realize the transformative potential of AI, they are investing heavily to stay ahead of the competition. Analysts predict that by 2026, AI spending will surpass \$300 billion.¹ This surge in investment confirms that AI is not just the future; it is the present reality that organizations must embrace to unlock new opportunities and drive growth.

ChatGPT, developed by OpenAI in collaboration with Microsoft, has witnessed an impressive growth trajectory, attracting a substantial user base in a remarkably short time. In just 2 months, it achieved a level of popularity comparable to what TikTok accomplished in 9 months.²



Source: Reuters.com

This phenomenal growth is even more evident when comparing ChatGPT to other tech giants. It took Netflix a decade, Gmail 5 years, and Facebook 4.5 years to amass a comparable user base.

This milestone achievement positions ChatGPT as one of the fastest-growing and highly sought-after AI-powered platforms. As its influence continues to expand, ChatGPT solidifies its place as a frontrunner in the realm of cutting-edge technology and innovation.

Winners in the AI Landscape



Silica



Language Models



Proprietary Data



Systems of Engagement



Silica: The Power of Computing

Running AI systems requires massive computing power, and only a select few will emerge as winners in the silica field. With their extensive resources and expertise, companies like **Taiwan Semiconductor** are likely to continue to dominate in this sector. The concentration of power in silica necessitates a nuanced understanding of the **80-20 rule**, where a few prominent players will secure a competitive advantage.



What is the 80-20 Rule?

- The 80-20 rule suggests that 80% of outcomes stem from 20% of causes.
- Prioritizing the 20% of factors that yield optimal results is a central aspect of the 80-20 rule.
- Efficiently utilizing an entity's best assets to generate maximum value is a fundamental principle of this rule.
- The 80-20 rule is a guideline rather than a rigid mathematical law.
- It is important to avoid the misconception that if 20% of factors deserve priority, the remaining 80% can be disregarded.

Source: Investopedia



Language Models: Unlocking Deep Tech Potential

Language models, a critical aspect of AI, have experienced significant investments over the years. While there will be an explosion of language models, we anticipate that only a select few will emerge as winners due to the inherent challenges associated with building and deploying these models. Companies such as Microsoft, heavily invested in OpenAI, and Google, with their robust infrastructure and computational capabilities, are well-positioned to leverage language models effectively.

Another factor influencing success is the limited talent pool. The scarcity of talented engineers has created a deep moat, making it difficult for new players to enter the market. The majority of these highly skilled engineers are already employed by tech giants such as **Meta, OpenAI, Google, Amazon, and Tesla**.

Even if a company manages to build a language model, making it readily available poses another hurdle. Model providers not only face language-related challenges but also must tackle complex cloud computing infrastructure issues. These encompass

concerns such as bandwidth, scalability, availability, and the need for expensive hardware like silica.

In addition, the competition in this space is fierce, with a few dominant players emerging as the winners. OpenAI, for instance, continually reduces the cost of API access, solidifying its current position in the market. This power law distribution is likely to persist.

Navigating the landscape of language models and AI technology requires understanding the unique challenges and dynamics at play. The combination of scarce engineering talent, intricate infrastructure requirements, and fierce competition makes it clear that establishing a foothold in this field will be no easy feat.

Proprietary Data: Unleashing Your Competitive Advantage

Proprietary data holds immense value in the AI landscape. In the race to harness the power of AI, the next wave of winners will be those armed with their own datasets separate from the pool used by ChatGPT. The most valuable will be health-related, business-focused, or financial. This data will be used to fuel a necessary foundation for AI training for medical diagnoses, and identifying trends in business and financial sectors.

The ability to harness proprietary data and comprehend its true value will be pivotal in determining who stands out from the rest.

However, collecting such data is no easy feat. It requires navigating complex rights and copyright issues, making it a hurdle for those who possess it. Many entities, such as apartment building owners who hold information on rent rolls, demographics, and resident locations, often fail to fully grasp the immense value their data holds.

As the AI revolution continues to unfold, it is clear that data is the new currency, unlocking untapped potential and reshaping entire industries. The ability to harness proprietary data and comprehend its true value will be pivotal in determining who stands out from the rest.



Systems of Engagement: Owning the Workflow

Having ownership over the *entire* workflow is a key determinant of AI success for companies. The ability to control and shape the entire engagement process, both externally through customer-facing software and internally within operational systems, can provide a significant advantage.

By owning the customer workflow, companies can tailor and optimize the entire customer experience to align with their business goals and aspirations with AI. This control enables them to create seamless and personalized interactions, from initial engagement to post-sales support, fostering stronger customer relationships and loyalty.

Companies that have end-to-end control over the customer workflow can strategically integrate AI technologies at various touchpoints to enhance efficiency, automate processes, and deliver personalized recommendations or solutions. This level of integration ensures a consistent and cohesive customer journey, minimizing friction and maximizing satisfaction.

Furthermore, incorporating AI into the customer workflow empowers businesses to collect and analyze valuable data throughout the entire engagement process. This data can be leveraged to gain insights into customer behavior, preferences, and pain points, enabling companies to continuously improve their offerings and drive innovation.

Integrating AI into systems of engagement can:

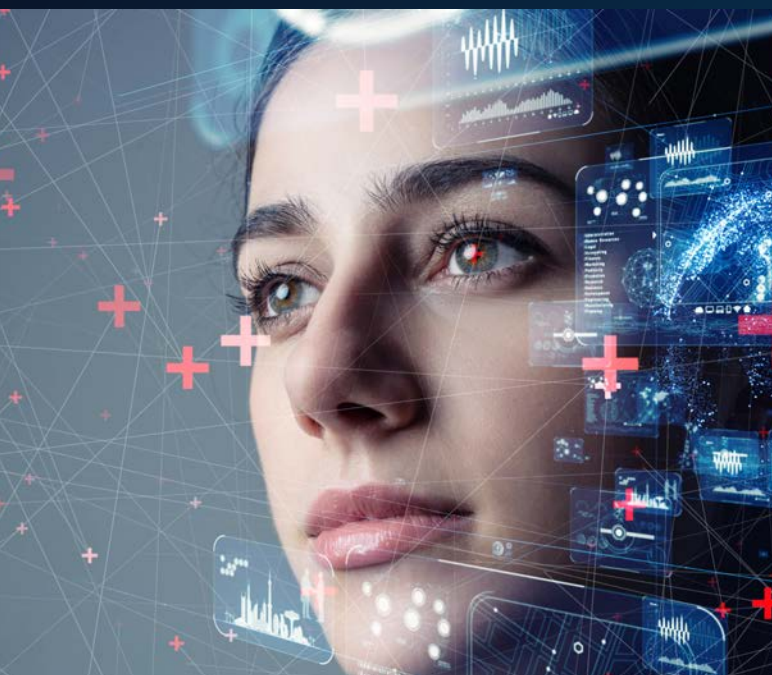
- Streamline operations
- Enhance the user experience
- Solidify their positioning

"The people who own the workflow and especially if you own data with the workflow, you stand to gain [...] I think that systems of engagement are going to be the people who can win."



Brendan King,
CEO of Vendasta

How AI is Improving Workflow



In just over a decade, artificial intelligence (AI) has made significant strides in surpassing human capabilities in various tasks. Azeem Azhar, a renowned expert on AI and exponential technologies, highlighted the remarkable progress achieved in handwriting recognition and reading comprehension in his most recent research and findings.

It's astonishing to think that a mere 11 years ago, computers struggled to recognize handwriting, yet today AI systems have not only mastered this skill but have also surpassed human performance in several areas such as language comprehension and image recognition.¹⁵

This research sheds light on the remarkable journey of AI, from lagging behind humans to now climbing past them in specific domains. This progress highlights the immense potential of AI in revolutionizing various fields and unlocking new possibilities for human-machine collaboration.



Sandy Lohr,
CEO of MatchCraft

"...your lower-skilled workers see the highest benefit from AI. Because it increases their productivity, it increases their creativity, and their quality.

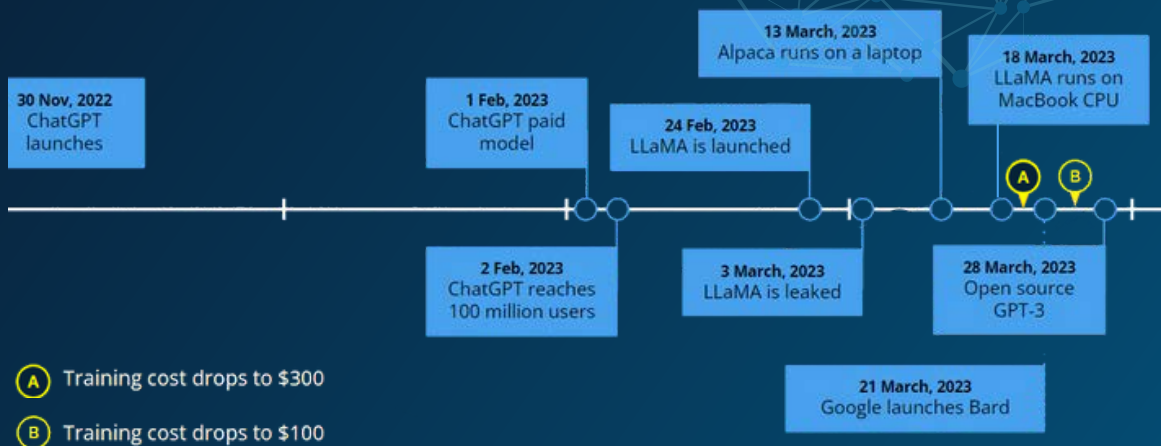
Your top performers are training your models with their best work. They need to be engaged in the process to help train each group to elevate the output."

Why it is Imperative to Act Now

It's not a matter of "if" but "when." The current state of AI presents a unique opportunity for organizations, as technological advancements have made it more accessible and affordable than ever with training costs dropping from an average of \$300 to \$100 in a matter of months.^{3 4 5}

The recent democratization of AI has resulted in smaller and more interconnected models that can be trained faster. From the timeline shown below, from February to March, there was an unprecedented surge in the development of language and processing models, signaling the rapid progress being made in the field.^{3 4 5}

The rate of innovation is accelerating



Leading companies like Meta and Google are actively investing in AI to keep up with the advancements made by industry leaders such as OpenAI in partnership with Microsoft. This competitive environment underscores the urgency for businesses to embrace AI sooner rather than later.

AI adoption has been steadily increasing across various industries in recent years. Many businesses have already recognized the benefits AI brings, such as improved efficiency, enhanced decision-making, and the ability to gain insights from large amounts of data. Companies in finance, healthcare, retail, manufacturing, and technology have been particularly active in adopting AI technologies.

By embracing AI now, businesses can take advantage of the decreasing costs associated with training AI models and the reduced hardware requirements. Acting promptly allows organizations to leverage the compounding benefits of AI and stay ahead of their competitors as AI becomes more widely adopted.

Overcoming Obstacles to AI Adoption

Resistance to Change

In the realm of AI adoption, one of the initial hurdles often encountered is resistance to change.^{6,7} It is a natural response, but shifting our mindset to view change as an opportunity for growth is the first step toward the successful adoption of AI.

Many are wary that AI will take away their livelihoods, however, it is important to emphasize that AI is not meant to replace human efforts but rather to enable and augment them. By helping your organization grasp this concept, you can pave the way for the successful integration of AI technologies and drive innovation across various departments.

Facing a Limited Talent Pool



41%

Digitized organizations struggle to find the right talent

Finding the right talent has always been a challenge, particularly for organizations outside the realms of the "exciting" fields. The demand for AI expertise continues to grow, making talent acquisition a top priority for the most digitized companies. In fact, a recent survey revealed that 41% of respondents consider talent as their biggest challenge.⁸

The difficulty lies not only in the competitive job market but also in the unique nature of the work itself. AI introduces new skill sets and roles that require specialized knowledge and experience. As organizations strive for success in this domain, they must adopt a fresh approach to talent acquisition and leveraging their current talent pool.

Organizations must proactively adapt their talent strategies. This entails seeking individuals with a deep understanding of AI and its applications, as well as nurturing a culture of continuous learning and upskilling. By embracing the opportunities presented by AI and reimagining their workforce, companies can navigate the challenges of talent acquisition and position themselves for success.

Upskilling & Retraining

35%

Increase in productivity of low-skilled workers

- Higher level analytical and strategic thinking skills
- Transfer skill set to higher value more engaging positions

Source: Business Insider

An alternative approach to addressing talent challenges lies in nurturing internal growth and development. It's important to remember that everyone starts from a common point when it comes to AI adoption. While many individuals may worry about AI replacing human workers, the reality is that AI can actually empower and enable people in their roles.

Investing in AI to upskill and retrain your existing workforce presents a valuable opportunity to increase productivity and drive positive outcomes. Studies have shown that even the lowest-skilled workers experience significant productivity improvements when paired with an AI assistant.

The benefits of upskilling and retraining with AI extend beyond productivity gains. By providing opportunities for your employees to develop new skills and knowledge, you create a more engaging and enjoyable work environment. This, in turn, leads to increased job satisfaction and a decrease in turnover.

Where to Invest Employee Training

6 in 10

Workers will require training before 2027

- Analytical thinking
- Creative thinking
- AI & big data utilization
- Leadership & social influence
- Resilience, flexibility & agility
- Curiosity & lifelong learning

The highest priority for skills training from 2023-2027 is **analytical thinking**, which is set to account for 10% of training initiatives, on average. The second priority for workforce development is to promote **creative thinking**, which will be the subject of 8% of upskilling initiatives. Training workers to **utilize AI and big data** ranks third among company skills-training priorities in the next five years and will be prioritized by 42% of companies. Employers also plan to focus on developing workers' skills in **leadership and social influence** (40% of companies); **resilience, flexibility, and agility** (32%); and **curiosity and lifelong learning** (30%). Two-thirds of companies expect to see a return on investment in skills training within a year, whether in the form of enhanced cross-role mobility, increased worker satisfaction, or enhanced worker productivity.^{9,10}

A recent McKinsey study highlights the need for upskilling and training, as 14% of the global workforce is projected to change occupational categories by the end of this year.⁸



14%

Of the global workforce will need to change occupational category by 2023.

Embracing AI technologies can lead to happier, more productive employees who are less likely to quit. The future of work will involve a symbiotic relationship between humans and machines, where leadership, decision-making, and execution tasks are distributed to achieve optimal outcomes. The way we work is evolving rapidly, and organizations must adapt to these changes in order to navigate and thrive in this new landscape.

*"In Marketing Services, we have already seen in **four months a 25% improvement in efficiency**, in addition, **creativity and quality have increased as well.**"*

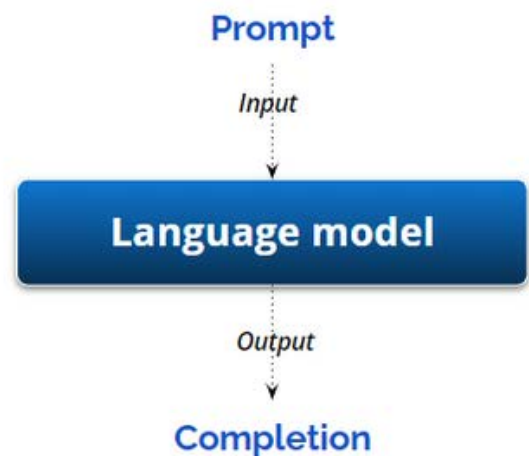
—Brendan King, CEO of Vendasta

Hiring Prompt Engineers

Just a few months ago, the term "prompt engineering" was relatively unknown. Prompt engineering encompasses much more than simply asking questions to an AI system. It plays a crucial role in ensuring that AI systems generate outputs that are relevant, accurate, and aligned with the organization's desired outcomes.¹¹

Prompt Engineering

- Development of effective prompts
- Review & selection of inputs and database addition



It turns out that communicating effectively with AI can be challenging. To excel in prompt engineering, an organization must possess talent with the ability to understand and provide potential inputs to the model, including access to relevant databases and information. As AI continues to advance, the demand for prompt engineers is expected to grow significantly, creating numerous job opportunities in this field.

A staggering 45% of global economic gains by 2030 will be attributed to AI. How is this possible? AI will drive product enhancements, stimulate consumer demand, and generate labor savings.¹²

As firms strive to augment the productivity of their workforce and automate certain tasks, we can expect significant improvements in labor productivity, resulting in initial GDP gains. However, the real economic impact of AI lies in product enhancements that drive consumer demand. AI will enable greater velocity for innovation, efficiency, and affordability.

"At MatchCraft, we have experienced firsthand the transformative power of AI. By utilizing Large Language Models and training our models with thousands of daily campaigns, we have enhanced our ability to detect the most effective portions of a webpage for ad copy.

Rather than dwelling on the negative implications of AI, we choose to embrace its potential to boost productivity and efficiency. The key lies in strategic investments in various AI technologies to unlock their full potential."



Sandy Lohr,
CEO of MatchCraft

Privacy & Regulation Concerns

While AI platforms such as ChatGPT have proved invaluable to the democratization of AI, they also can pose issues with certain local regulations and privacy because the data you feed into is stored by the platform for training purposes.^{13 14 16}

To protect your sensitive information from becoming part of an open-source Large Language Model (LLM), it's crucial to educate your employees. By raising awareness about the potential risks, we can prevent the inadvertent disclosure of sensitive data related to corporate privacy and the protection of consumer information.

Consumer protection:

- ChatGPT temporarily banned in Italy¹⁴
- Consumer advocacy group BEUC called on EU and national authorities to investigate ChatGPT¹³
- EU legislation subjects high-risk tools to stricter transparency¹³

Corporate privacy:

- Sensitive info entered into LLM and stored as training data
- Amazon, Microsoft and Walmart issued warnings to employees¹⁶

Embracing the potential of AI shouldn't be hindered by concerns about data security. While staying compliant and protecting sensitive data is important, there are resources and safeguards at your disposal to stay on top of potential legal concerns. That's why we recommend consulting regular legal advice to ensure your organization's practices align with the latest standards.

"At Vendasta, we utilize advanced software solutions like Cyberhaven to enhance data security. With its robust capabilities, Cyberhaven has successfully blocked data from 1.6 million workers, significantly reducing the risk of confidential information, client data, source code, or regulated information being leaked to LLMs."

—Brendan King, CEO of Vendasta

Key Takeaways



AI enables
lightning-fast innovation



Winners will own
their own data and workflows



Resist the
urge to hold off



Embrace what AI can do for
you and your customers



Consult your legal team
along the way



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