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- At the beginning of 1950, John Von Neumann and Alan Turing did not create the term Al but were the founding fathers of the technology behind it
- they made the transition from computers to 19th century decimal logic (which thus dealt with values from 0 to 9) and machines to binary logic (which rely on Boolean algebra, dealing with more or less important chains of 0 or 1).
- The two researchers thus formalized the architecture of our contemporary computers and demonstrated that
- it was a universal machine, capable of executing what is programmed. Turing, on the other hand, raised the question of the possible intelligence of a machine for the first time in his famous 1950 article "Computing Machinery and Intelligence" and described a "game of imitation", where a human should be able to distinguish in a teletype dialogue whether he is talking to a man or a machine.
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The impact of the film will naturally not be scientific but it will contribute to popularize the theme, just as the science fiction author Philip K. Dick, who will never cease to wonder if, one day, the machines will experience emotions.

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In 2016, AlphaGO (Google's Al specialized in Go games) will beat the European champion (Fan Hui) and the world champion (Lee Sedol) then herself (AlphaGo Zero).

Let us specify that the game of Go has a combinatorics much more important than chess (more than the number of particles in the universe)







As documented in a paper <u>published in the journal Science today</u>, the <u>CMU/Facebook collaboration</u> they call Pluribus reliably beats five professional poker players in the same game, or one pro pitted against five independent copies of itself. It's a major leap forward in capability for the machines, and amazingly is also far more efficient than previous agents, as well.

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First came DALL-E, the AI that can create pictures from language prompts. Many of us enjoyed playing with the tool and embracing the ability it gave to us to design in new ways. Others worried about AI taking over our human creativity. Moreover, since DALL-E pulls photos from the web, there is concern that some cultures with little online representation will be left out of these models and will become less represented in the world.

Next there was ChatGPT, DALL-E's literate and coder "sibling". Whilst the former creates new images the latter creates text and code. These texts can be newspaper articles, students' essays, speeches, scientific papers and more. Again, it does so from a written prompt provided by the users. The concerns that surround DALL-E also surround ChatGPT, it is a "black box" so we have no understanding of how it works. But there is no doubt that if ChatGPT improves efficiency and if it is used in the right way, it will be a hugely important tool.

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We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run.

















































# USES OF CHATGPT

- 1. Prompt and personalised responses
- 2. Budget-Friendly
- 3. Giving correct answers to your questions
- 5. The main advantage of chat GPT is that when people search their query, it provides detailed answers to their questions, allowing you to learn everything about your query.
- 6. When you search something on Google, many websites appear in a row, but here you can directly ask your questions and get answers.
- 7. This platform is completely free to use and has no paid charges associated with it.









## How to get 10x better responses with this secret ChatGPT Prompt

Here is how you can create prompts that will guarantee to give you better answers in <u>ChatGPT</u> and in other large language models. Follow these 7 steps:

#### Step 1: Consider the context of your prompt.

Set the scene. Before diving into a prompt, think about the context in which it will be used. Setting a specific field or topic for the model to focus on will help it understand the purpose of the conversation and provide more relevant answers.

#### Step 2: Give the model a task to complete.

Define a task. Once the context is established, give the model a clear task to complete. For example, if the prompt is about career advice, the task could be "provide the best advice for changing careers."

#### Step 3: Ask questions.

To ensure the output is relevant and helpful, ask specific questions within the prompt. This will give the model a better understanding of what you're looking for.

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42% share sensitive company data 57% of users surveyed do not check the veracity of answers before using them in their work 65% stated that their organisation has no clear guidelines or rules regarding the use of ChatGPT Only 22% of employees know how ChatGPT treats the information they provide 43% of respondents do not know how their data is handled Only 18% said that the rules were formally set out in an official e-mail and just under 15% in a specific official document". More than half of employees surveyed (57%) said they did not check the accuracy or reliability of Al-generated content before passing it off as their own work. Source Karspersky quoted by RTBF





















































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Many fear that artificial intelligence will be the end of humankind – here's the truth according to experts.

- By now, most people around the world use some sort of Al-utilizing device that is integrated into their daily lives. They use Siri to check the weather, or ask Alexa to turn off their smart lights these are all forms of Al that many people don't realize.
- However, despite the widespread (and relatively harmless) use of this technology some people still seem to believe that machines could one day wipe out humanity.
- wipe out humanity.
  Even staple figures in the field of science such as Stephen Hawking and Elon Musk have been vocal about technology's threat against humanity.
  In 2020, Musk told the New York Times that Al would grow vastly smarter than humans and would overtake the human race by 2025, adding that things would get "unstable or weird."
  Despite Musk's prediction, most experts in the field say humanity has nothing to worry about when it comes to Al at least, not yet.







Most AI is weak The fear of AI taking over has developed from the idea that machines will somehow gain consciousness and turn on their creators. In order to achieve this, it would need to be able to predict the future or plan ahead. As it stands, AI is not capable of doing either. At present, most of the AI technology utilized by machines is considered "narrow" or "weak," meaning it can only apply its knowledge towards

## Al does have risks

- Some of these risks include overoptimization, weaponization, and ecological collapse, according to Ben Nye, the Director of Learning Sciences at the University of Southern California, Institute for Creative Technologies (USC-"If the Alignment of the Alignment of the Alignment of the Alignment over the Alignm
- "If the AI is explicitly designed to kill or destabilize nations...accidental or test releases of a weaponized, viral AI could easily be one of the next significant Manhattan Project scenarios," he stated on Metafact.
- "We are already seeing smarter virus-based attacks by statesponsored actors, which is most assuredly how this starts," Nye added.









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#### Augmented Working, BYOAI, & Shadow AI

· BYOAI (Bring Your Own Artificial Intelligence) is a new • Broad Bining tool Own Autinual intelligence) is a relevance workplace trend where employees bring their own Al tools and applications to work. The increasing availability of affordable and easy-to-use Al tools and the growing demand for A skills in the workforce drive this trend. <u>Forester reports</u> that 60% of workers will utilize their own AI to perform tasks.

 There are many benefits to BYOAI, including increased productivity and innovation, improved employee satisfaction, and reduced costs.

While BYOAI is a great opportunity for workers, it might easily get out of control.

Shadow AI, also known as Shadow IT for AI, refers to using artificial intelligence applications and tools within an organization without explicit knowledge or oversight from the IT department.

It poses several risks, such as:

- Data privacy and security breaches: Unsanctioned Al tools may not have the same protections as official ones, so sensitive information can be stolen or lost.
- **Compliance violations:** Similarly, these tools might not follow important regulations which could lead to legal trouble.



#### 1. Generative AI: The Most Disruptive AI Trend of the Decade

· Generative AI (GenAI) is a type of artificial intelligence that can generate new creative content, such as text, code, scripts, musical pieces, emails, letters, etc. GenAl models are trained on massive amounts of data, and they are able to learn patterns in the data and use those patterns to generate new outputs.

 The trend of generative artificial intelligence speeding up work applies to any job and activity. It offers the potential to automate tasks, boost productivity, reduce costs, and offer new growth opportunities.

· That's why the widespread availability of Al contentcreation tools that democratize access to information and skills makes it one of the most disruptive trends of this decade

 Al trends report by Gartner predicts: by 2026, the adoption of generative AI is expected to skyrocket, with over 80% of enterprises incorporating generative AI APIs, models, and applications into their operations, up from less than 5% currently.



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#### Open Source Al

 The 2023's generative AI boom was mostly driven by the proprietary models of OpenAI - we built our Pragmatic Al chatbot using ChatGPT 3.5 Jurbo. too. However, many organizations are now adopting open-source models, such as GPT-J.

 Open-source models are more transparent, flexible, customizable, and cost-effective than proprietary models.

· While it doesn't mean that proprietary models will be soon gone, the future eaves more space for open-source A solutions, with 85% of enterprises incorporating open-source AI models into their tech stacks, according to Forrester.

## Al Risk Hallucination Policy

 While GenAl is a powerful tool, it also has the potential to produce false outputs that look as if they might be true. These false outputs are known as hallucinations.

 As GenAl becomes more widely used, there is a growing concern about the risk of hallucinations, and the demand for insurance coverage will increase.

 The market for AI risk hallucination insurance is still in its early stages, but it is expected to grow rapidly in the coming years.

· Internal policy for employees is mandatory

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## AI TRISM

AI TRISM stands for Artificial Intelligence Trust, Risk, and Security Management. It is a framework that helps organizations manage the risks of developing and deploying AI models.

- AI TRISM addresses five key areas:
- Explainability: AI TRISM helps organizations understand how their AI models make decisions and identify potential biases.
- ModelOps: AI models need to be managed and maintained just like any other software system. AI TRISM provides tools and processes for automating and monitoring the lifecycle of AI models.
- Data anomaly detection: Al models are trained on data; if the data is incorrect, the outputs won't be satisfying, too. AI TRISM helps organizations identify and address data anomalies that could lead to errors in AI models.
- Adversarial attack resistance: AI TRiSM provides tools and techniques for defending against adversarial attacks.
- · Data protection: AI models often contain sensitive personal data. AI TRISM helps organizations comply with data privacy regulations and protect the privacy of individuals.
- AI TRISM is becoming increasingly important as organizations adopt more AI. According to insights by Gartner, by 2026, companies that use AI TRISM to manage their AI systems will make better decisions by removing 80% of inaccurate or fake data.





AI CODING

 According to Gartner, by 2028, three out of four enterprise software engineers will use Al helpers to write code. Just to compare: in early 2023, less than one out of ten software engineers used these helpers.

- Why is trending?
- Artificial intelligence helps developers in various ways, such as:
- Automation of repetitive tasks (code generation, documentation formatting, application testing),
- Optimization of creative processes. Improving code guality,
- · Support problem-solving.
- · The risk is dissemination of source code

Soon, if not already, using Al coding tools will be a standard practice. Those who don't embrace them in time will soon fall behind their competitors.



## Intelligent Apps & AI for Personalization

the rise of AI is transforming the way we interact with technology, and this is especially evident in the realm of personalization.

 As we can read in <u>Gartner's report</u>, by 2026, a third of all new apps will use AI to create personalized and adaptive user interfaces. This is a significant increase from today's numbers, where only about 5% of apps use AI in this way.

- Why is it trending?
- · By leveraging AI algorithms to analyze user data and preferences, intelligent apps can tailor content, recommendations, and user experiences to each individual user
- Al-powered personalization has a huge impact on user engagement and conversion rates. For example, a study by McKinsey found that companies that excel at personalization generate 40% more revenue from those activities than average players.
- This is because personalized recommendations align more closely with a user's interests, making them more likely to click on and purchase a product.



#### Quantum Al

 The marriage of quantum computing and AI, known as quantum AI, is a rapidly emerging field that opens up many possibilities. The global Quantum AI market is expected to reach USD 1.8 billion by 2030, growing at a CAGR of 34.1%.

 Quantum computers can provide the computational power to train and run complex AI models, while AI algorithms can optimize and utilize quantum resources efficiently.

This synergistic relationship has the potential to revolutionize areas such as:

- Financial modeling and risk assessment: Quantum AI can analyze vast amounts of financial data to identify patterns and predict market movements, improving risk management and investment strategies.
- Drug discovery and development: With quantum algorithms, scientists will be able to optimize drug design and simulate molecular interactions to speed up the discovery of new and effective therapies.
- Artificial General Intelligence (AGI): Quantum AI could play a crucial role in achieving yet hypothetical artificial general intelligence (AGI), the ability of machines to perform any intellectual task that a human can.

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#### Ethical Al

- Ethical AI is a branch of applied ethics that examines the
- ethical implications of artificial intelligence (AI). It encompasses a wide range of topics, including:

### Bias and fairness

 Al technology can reflect and amplify the biases of their creators. This, in turn, can lead to unfair outcomes for certain groups of people.

## Transparency and explainability

 The logic behind artificial intelligence can be difficult to understand, even for experts. This "black-box problem" can make it difficult to trust AI decisions and to hold AI developers accountable for their creations.

## Privacy

 Al often collects and uses large amounts of personal data, which raises concerns about privacy and data protection.

Safety and Security

 Al systems can be misused to cause harm, such as by developing autonomous weapons or spreading misinformation.



 As artificial intelligence becomes increasingly sophisticated and integrated into our lives, there is a growing need for legislation to govern its development and use.

 AI can be used for a wide range of positive and negative purposes, and it is important to have laws in place to ensure that it is used responsibly and ethically.

### • EU AI Act

 The European Union is leading the way in Al legislation, with the European Commission proposing the Artificial Intelligence Act in 2021. This proposed regulation would be the first global framework for Al governance. <u>The EU AI</u> <u>Act</u> was adopted in early 2024.



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# Al Jobs

 As artificial intelligence continues to permeate various industries, we can observe two job trends:

Al upskilling - refers to the process of learning new skills and knowledge related to AI to improve one's job performance or career prospects.

#### New Al jobs are emerging

- AI Product Manager: Responsible for overseeing the development and launch of AI-powered products,
- Al Engineer (Al Research Scientist, Business Intelligence Developer, Computer Vision Engineer, Machine Learning Engineer, NLP Engineer, etc.)
- AI Ethicist: Ensures that AI systems are developed and deployed ethically and responsibly, addressing issues of bias, fairness, privacy, and
- transparency.

   Al Input and Output Manager: Manages the input data fed into Al systems
- and interprets the output generated by these systems.
- Sentiment Analyzer: Analyzes customer feedback, social media comments, and other forms of text data to understand public sentiment and opinions.
- Al Regulatory Specialist: Stays up-to-date with the evolving regulatory landscape around Al and ensures that companies comply with relevant regulations.
- Al Human-Computer Interaction (HCI) Designer: Designs user interfaces for Al-powered products and applications to enhance user experience and ensure intuitive interaction.



#### · AI-Powered Online Search

 Al is transforming online search, giving us personalized, contextual, and predictive experiences:

 Al algorithms tailor results to user preferences so that we can get more relevant and timely information.

· Contextual understanding ensures accurate results even for

complex queries.

 Conversational search, powered by natural language processing, enables natural interactions with search engines.

Visual search allows users to search using images or videos.
Al's impact is evident in SEO and content creation. However, the

main challenge Al-search-powered companies face is gaining customers' trust.

 Research conducted by Statista in February 2023 showed that consumers are curious about Al-powered search but have concerns about its accuracy and biases. 39% of surveyed adults in the US stated they don't trust Al tools to respect their data privacy.

 Consumers prioritize safety, ease of use, and integration with existing digital platforms. While some seek Al-enhanced results, others prefer traditional search methods.

• search, with 40% indicating a willingness to switch.

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# Al in Customer Service Companies are investing me

## 1. Companies are investing more in AI for customer service

 Customer service leaders are excited about AI's potential and plan to invest more in it in the coming years. In fact, 69% of support leaders say they will invest more in AI in the year ahead.

#### • 2. Al will make customer service jobs better, not replace them.

 Al will not replace human customer service representatives but will make their jobs easier and more efficient. Over three-quarters (78%) of support leaders expect Al to transform customer support careers in the next five years.

3. Al can help companies save money and improve efficiency.

 Adding AI and automation to your customer service toolkit can help you save money and improve efficiency. At a time when business resilience is more important than ever, 66% of support leaders are excited about using AI and automation to increase the efficiency of their teams in the year ahead.

4. Al can give companies a competitive edge in customer service.

 Customer experience is a key differentiator in today's market, and AI can help companies provide better customer service and give them a competitive edge. In fact, 73% of support leaders believe customers will expect AI-assisted customer service in the next five years.

5. There is a gap between what customer service leaders vs. customer service representatives know about Al.

 While over two-thirds of support leaders are confident that customers are ready to interact with an AI chatbot, less than half of support practitioners feel the same.

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