

Artificial Intelligence: How to Boost and Turn Conversational AI Into Business Success



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Abstract

Artificial intelligence (AI) is a rapidly evolving computing field with a wide range of applications. One such application is Conversational AI, which uses Machine Learning (ML) and Natural Language Processing (NLP) to enable computers to interact with humans in more natural ways. This abstract gives an overview of the topic of employing Artificial Intelligence to advance and commercialize Conversational AI. We are trying to understand how various Virtual Assistants can help us and answer some specific questions, such as: what are the benefits of using Conversational AI and Virtual Assistants, which types of NLP models and APIs are available, and how to implement and leverage Conversational AI for your organisation growth? The main emphasis is on the use of AI to conversational systems, like chatbots, to offer customers a more comfortable and natural method to communicate with enterprises. The advantages of employing conversational AI

are discussed in the paper, including enhanced customer experiences, better productivity, and cost savings. It also emphasizes the crucial elements of a conversational AI system and how it might be used to gain an advantage over rivals. The paper ends by highlighting the value of continued innovation and the need to keep on top of trends in the rapidly evolving AI field.

The Scientific Novelty of Conversational AI

Conversational AI is a new phenomenon in the field of Artificial Intelligence. The scientific novelty of Conversational AI is that it allows for the creation of a new kind of human-machine interaction by software that can interact with humans on a natural language conversational basis, which opens a wide range of potential applications. Unlike previous forms of AI, it doesn't just learn to interact with humans, it actually learns to talk like one. Humans can interact with a computer in an intuitive way, and it will respond in an intelligent way. It can engage in conversations without being pre-programmed with specific questions and answers.

Keywords: *Emerging Technologies, Innovation, Novelty, Artificial Intelligence, Machine Learning, Conversational AI, Virtual Assistant, Natural Language Processing, Application Programming Interface, Chatbot, Voicebot.*

1. Introduction

AI appears to be a dream these days, where a wide range of businesses, organizations, and individuals across various industries can use it for their needs anywhere and anytime. Conversational AI and virtual assistants are designed to simplify our daily lives by taking care of tasks that we may find tedious, time-consuming or complicated. They are serving us 24 hours a day, 7 days a week, 365 days a year without a loss of productivity and quality by understanding and responding to our requests using Natural Language Processing (NLP) and using Machine Learning (ML) algorithms. Artificial Intelligence can learn, adapt, and make decisions based on the information it has been given. Conversational Virtual Assistants are a type of Artificial Intelligence that has been specifically designed to interact with humans through conversation. Both of these technologies have far-reaching implications for how we work and live, and they're both poised to become more important than ever before. Currently Artificial Intelligence and Conversational Virtual Assistants are used to process large amounts of data, including video, images, and text, making predictions about future events, and generating hypotheses to explain observed phenomena by learning from past experiences and making decisions based on them.

Getting started: Where Should We Focus on the Main Tasks of Artificial Intelligence and Conversational Virtual Assistants?

Artificial Intelligence:

- Recognition and analysis of images, text, and video
- Machine learning (ML)
- Natural language processing (NLP)
- Information retrieval, search engines, document classification and translation between languages

Conversational Virtual Assistants:

- Voice recognition
- Speech synthesis
- Natural language understanding (NLU)

2. What Are the Benefits of Using Conversational AI and Virtual Assistants

AI is transforming industry, and it's definitely time to get on board. Higher ROI and improved competitiveness, together with higher digital maturity, have boosted AI adoption, but the main reason for businesses to adopt AI is to stay competitive and embrace its many benefits. For example, according to [IBM findings](#) [7], 53% of IT professionals have accelerated their rollout of AI over the last two years, which is 10% more than in 2021 when the trend was fueled by the Covid-19 pandemic. Obviously, organizations that don't implement an AI program will soon be left behind, as the technology becomes more potent and increasingly commoditized. With AI, companies can gain a competitive advantage, increase productivity and agility, improve customer experiences, and many more.

Innovation: AI opens new possibilities for innovation and can lead to the development of new products and services.

Improved productivity and efficiency: AI automate repetitive tasks and enhances decision-making processes, leading to increased productivity and efficiency.

Accuracy: AI algorithms can perform tasks with higher accuracy than humans, leading to reduced errors, better compliance and improved outcomes.

Competitive advantage: Companies that adopt AI have a competitive advantage over their peers as they are able to respond to changing market conditions and customer needs faster.

Better customer experience: AI can be used to personalize customer interactions, leading to a better customer experience and increased customer loyalty.

Data-driven insights: AI helps organizations extract insights from large amounts of data, leading to better decision-making and improved outcomes.

Cost savings: AI can help reduce labor costs, minimize errors, and increase operational efficiency, leading to cost savings for organizations.

As a result of wider AI adoption, experts expect the global AI market size to grow rapidly at a [CAGR of 38%](#) [1] between 2022 and 2030. What is more, the tech is expected to trigger a digital revolution and 4IR innovations, as noted by [McKinsey analysts](#) [9]. By 2025, the tech may reach \$4 trillion in value.

3. Unlocking the Full Potential of Conversational AI for Your Business

Whether you run a business, are a consumer, or both, you want to get the most out of your interactions with machines and humans. AI-powered chatbots can help by facilitating conversations, automating routine tasks, and collecting data that helps you learn more about your customers' desires to give you the most in-demand products. AI can perform a variety of roles, depending on your business needs: it can serve as a data analyst's assistant, virtual customer support, designer, junior developer, adviser, copywriter, or be here and there to complete repetitive tasks with great accuracy and speed. No matter what industry you work in, conversational AI can be integrated into various platforms, such as messaging apps and voice assistants, making it accessible to users. It allows companies to automate customer service, personalize communications and collect valuable data.

Conversational AI is used by a wide range of businesses, organizations, and individuals across various industries including:

Customer Service

Conversational AI can help with customer service by providing customers with quick and convenient access to information and support. Here are some ways that conversational AI can assist with customer service:

24/7 Availability: Conversational AI can provide customer service 24 hours a

a day, 7 days a week, without the need for human support staff. This can lead to faster response times and improved customer satisfaction.

Personalized Interactions: AI-powered chatbots can use natural language processing (NLP) and machine learning (ML) to understand the context of a customer's query and provide personalized responses, answer frequently asked questions, and help customers resolve issues.

Automated Resolutions: For common questions and issues, chatbots can use pre-programmed responses to quickly resolve a customer's problem, reducing wait times and the need for human support staff.

Improved Efficiency: By automating routine tasks, conversational AI can free up human support staff to focus on more complex and high-value customer service interactions.

Enhanced Data Collection: Conversational AI can collect data on customer interactions, providing valuable insights into customer behavior and preferences that can inform future customer service strategies.

Healthcare

Patient Engagement: AI-powered virtual assistants are used to help patients book appointments, manage their health records, and provide general information about health conditions through virtual assistants, chatbots, and voice assistants. All managing processes take place from the comfort of their homes.

Diagnosis and Treatment: Conversational AI can be used to diagnose and treat patients based on the symptoms they describe. The AI system can help healthcare providers make informed decisions about patient care and treatment plans.

Data Collection and Analysis: Patient histories, diagnostic results, and treatment plans can be collected to be used to improve healthcare delivery and decision-making.

Medical Research and Development: The AI system can process large amounts of data, analyze results, and identify trends and correlations, which can help speed up the development process for medical researchers and pharmaceutical companies in developing new treatments and medicines.

Customer Service: Simple actions like answering questions, resolving issues and providing information about health insurance, billing, and other administrative tasks now can be AI's responsibility.



E-commerce

Conversational AI can help with E-commerce in several ways:

Personalized Recommendations: By analyzing customer behavior and purchase history, AI can provide personalized product recommendations better than ever before. This can improve the customer experience and increase sales.

Chatbots: Chatbots interact with customers in real time. They can help with product searches, provide information on promotions, compare products and process orders from start to finish.

Payment Processing: Conversational AI can be integrated with payment gateways to simplify the payment process for customers. This can reduce friction and improve the overall checkout experience.

Lead Generation: Automate your lead generation process by interacting and gathering current information for further transmission to sales representatives using Conversational AI.

Customer Service: Conversational AI can assist customers with their queries and provide them with relevant information. It can help in resolving issues and answering frequently asked questions, thereby reducing the load on human customer service representatives.

Financial Services

AI is revolutionizing the way financial services companies operate, with the potential to help them become more efficient by providing financial advice, help customers manage their accounts, and detect fraud.

Risk management: AI can assist financial services companies in assessing risk by analyzing large volumes of data, finding patterns, and predicting potential risks.

Fraud detection: AI can aid financial services companies in detecting fraud more efficiently and effectively by analyzing vast volumes of data, detecting patterns and anomalies in real-time, and making decisions based on that analysis.

Personalized Customer Service: AI virtual assistants or chatbots can be used to analyze customers' data and preferences and provide personalized customer service, such as investment recommendations, loan products and insurance coverage.

Education

Content generation: AI can be used to create simulations, learning content, notes, tests, quizzes, and more.

Intelligent tutoring systems: AI-based tutoring systems can check students' results and explain new material in real time, adapting to their learning pace.

Automated grading and grading: Artificial Intelligence can be utilized to evaluate tasks and student performance, thus relieving teaching assistants from the laborious task of providing more personalized assistance to students.

Virtual Assistants: AI-powered virtual assistants can assist students with administrative tasks such as class scheduling, personal scheduling, class reminders, and course registration, as well as provide quick and accurate answers to common learning questions.

Predictive analytics: AI can analyze student data and performance to provide early warning of potential academic problems and absenteeism, allowing teachers to intervene and provide immediate support.

4. Exploring the Different Types of NLP Models

Due to the rapid emergence and evolution of the field of Natural Language Processing, there are many ongoing research projects in this field.

The first autoregressive language model was proposed by Alex Graves in 2013 with his paper «Generating Sequences With Recurrent Neural Networks» [4]. The paper proposed using recurrent neural networks to generate sequences of words for text prediction and completed tasks such as handwriting recognition and speech recognition. As the demand for more complex NLP models increases, data sets grow larger, and research problems become correspondingly more complex. NLP models can transmit and process information in different languages. Let's look at the main ones.

Pretrained Language Model – GPT-3

As Artificial Intelligence enables computers to understand human language, pre-trained language models such as GPT-3 (Generative Pre-trained Transformer) can be tuned for different NLP tasks with only a minimal amount of task-specific training data. The large capacity and versatility of GPT-3 make it an attractive option for cross-language NLP, especially for languages with limited labeled data. GPT-3 is capable of a wide range of NLP tasks, including text classification, part-of-speech tagging, text generation, machine translation, question answering, and more. The main advantage of GPT-3 is to provide a reliable baseline for fine-tuning to target languages with relatively little annotated data.

How does it work and how can you use GPT-3?

Text classification assigns a label to input texts based on their content, for example to detect sentiment or spam. Part-of-speech notation identifies the parts of speech that are used in a particular sentence, such as words, phrases, and adjectives. Text generation generates new text based on a prompt or input, such as a chatbot or creative writing. Machine translation translates text from one language to another. Question Answer generates question answers based on the context of the text. A summary generates a concise summary of a longer text input.

Adversarial NLP

Adversarial Natural Language Processing (Adversary NLP) is the field of Machine Learning that focuses on making NLP models more resilient to attacks or changes in input. The goal of Adversary NLP is to make NLP models more robust by making them more resilient to “adversary” examples. Adversary examples are deliberately crafted examples that are designed to deceive the NLP model.

Field of use:

As NLP models become more resilient, they become more reliable in the real world. They can be used to prevent malicious attacks on NLP models, such as spam filtering and fake news detection, as well as for sentiment analysis. With Adversary, NLP models can be better understood by understanding their weaknesses and improving their interpretability by clarifying their predictions.

Transfer-Learning Model

The idea behind transfer learning was first proposed by Yosinski et al. (2014), in a paper formally titled «How Transferable are Features in Deep Neural Networks?» [6]. Transfer learning is a type of machine learning in which the knowledge acquired from one task is applied to improve performance on another related task. Language models trained on a large set of text data might be trained to perform tasks like language modeling or named entity recognition. In the field of NLP, transfer learning is used to train a language model on a pre-trained set of text data in order to quickly and efficiently train the model for a particular NLP task.

Cross-lingual model

Another NLP model is Cross-lingual and refers to the process of training NLP models to perform tasks across multiple languages, typically with a target to transfer the knowledge learned from one language to another. For example, GPT-3 fine-tuning for cross-language text classification can be done by training a model in one language (for example English) on a large dataset and fine-tuning the model on a smaller dataset (for example German) to do the same text classification tasks. This can be achieved by freezing the weights in the pre-trained models and training only the final layer to adjust to the language. Also, it can be used to deploy NLP models in languages with limited labeled data and to facilitate the development of multi-language NLP models.

Dialogue systems

Scientists are creating sophisticated conversational AI systems that can converse in a human-like manner and help with tasks like information retrieval and customer service. GPT-3 can be finely tuned for dialogue systems to anticipate the next response to a given conversation prompt. This can be achieved by providing the pre-trained model with a large data set related to the domain it is used for. This can be done for a variety of applications, including Virtual Assistants, Chatbots, and Customer Service systems.

The model can provide a human-like response to user inputs and can be tailored to a variety of conversation scenarios, from straightforward queries to complex flows.

However, it is important to note that there are still certain challenges that need to be addressed to build successful dialogue systems, including the ability to control the diversity of responses, the desirability of responses that are off-topic, and the need for consistency in conversation flow. All these challenges must be carefully considered in order to effectively fine-tune the model, data selection, and evaluation metrics.



Multi-modal Models

Machine learning models that can work with multiple inputs, like text, images, sound, and video, are called multi-modal. For instance, multi-modal can process text and other data, like images or speech, together. If you want to learn about an image, you can use it to answer questions like what color is the car or what is the smallest object in the picture. The key advantage of multi-modal models in NLP includes is a better understanding of the input data by combining data from multiple sources, as well as more sophisticated user experiences, such as voice-based conversational agents (BCAs) or visual question-answering systems (QAS).

Each of the models includes several algorithms:

- GPT-2 decoder algorithm utilizes a beam search algorithm variant called nucleus sampling to select the top-ranked tokens that add up to a pre-determined percentage of the total probability mass.
- The Transformer decoder algorithm generates the output sequence using a beam search algorithm.
- The Seq2Seq decoder algorithm uses a greedy decoding algorithm to select the most probable output token at every time step.
- Transformer-XL decoder algorithm also uses a beam search algorithm for generating the output sequence but includes recurrence to deal with longer input sequences.
- Bert decoder algorithm uses an easy-to-understand decoding method known as masked language modeling. The model predicts words that are missing in a sentence.
- ELMo Decoding Algorithms use a basic decoding technique called greedy decoding, which means the model will output the probability distribution of each input token over the entire dictionary.
- Hybrid Code Network Algorithms: use beam filtering to generate an output sequence, which filters out any code snippets that are not valid.
- Autoencoders: use encoder and decoder layers to compress and reconstruct data.
- CGCP Algorithms: use reinforcement learning to train a model to give good answers in a dialogue setting, and DRL Algorithms use deep Q-network reinforcement learning to give appropriate responses.

5. Neural Networks

The concept of Recurrent Neural Networks was introduced by Elman in 1990 [14]. RNNs are a group of artificial neural networks that are designed to work with time series, audio and natural language. RNNs differ from feedforward neural networks in that they can process inputs in a variable order and have an internal state that stores information about the previous inputs. This feature makes RNNs useful for speech recognition, speech translation, image captioning and many more others.

The way RNNs work is that they have a feedback loop. The output of one step is fed back to the next step as input to the Feedback loop: allowing RNNs to learn patterns in a sequence of data. For example, RNNs can predict the next word of a sentence or the next value in a sequence of time series.

One of the problems with RNNs is called the vanishing gradient problem. This problem occurs when the gradients that are propagating through the network during the backpropagation phase become too small to influence the early layers. There are many different types of RNNs that have been designed to solve this problem, including LSTM (long-term memory) and GRU (Gated Recurrent Unit).

What are main kinds of neural networks?

Feedforward Neural Networks: these networks move information in one direction, from input to output, without forming a cycle.

Convolutional Neural Networks (CNNs): use convolutional layers to detect patterns in images and other data.

Recurrent Neural Networks (RNNs): use recurrent layers to process sequences of data, such as text or audio.

Generative Adversarial Networks (GANs): These networks use two neural networks, a generator and a discriminator, to generate new data from existing data.

6. Power of GPT-4

The [New York Times reported](#) [12] that GPT-4 is expected to be released in the first quarter of 2023. The debut of GPT-5 should be expected at the end of 2024 or in 2025. One of ChatGPT-4's most impressive features will be better at generating computer code - not just human languages but computer languages too. The number of parameters in the GPT-4 neural network is huge: if each neuron and synapse in the human brain had its own parameter, it would be about on par with the complexity of GPT-4.

That means we would have roughly the same number of parameters (connections) as there are synapses (connections between neurons) in the human brain.

What impact GPT-4 will give to humanity?

GPT-4 will be a Machine Learning model that can generate text in a variety of languages given an input. Unlike GPT-3, GPT-4 can perform language processing tasks more precisely and has the unmatched ability to produce highly readable,

grammatically accurate text because it was trained on a huge dataset with billions of parameters. It can produce text using the input given to it, and it can even produce text in the future using the previous output. In essence, GPT-4 will enable us to quickly write books and visualize data using charts and graphics.

7. Critical Elements of GPT-2, GPT-3, and GPT-4

Before considering critical elements, let's focus on the development of ChatGPT. Open AI team, which includes researchers such as Dario Amodei, Jack Clark, Alec Radford, Ilya Sutskever, and others [11] used a variety of scientific works to develop ChatGPT. For example: «Improving Language Understanding by Generative Pre-Training» [8] and «Generative Pre-Training from Perturbed Input» [5].

The OpenAI team has also used other works such as «Attention Is All You Need» [2], and «BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding» [3]. Additionally, they have also used «Language Models are Unsupervised Multitask Learners» [10].

I would like to get back on the basic ideas of Vaswani. The paper «Attention is All You Need» [2] presents a neural network architecture that eliminates the need for recurrence and convolution and achieves state-of-the-art performance in machine translation.

The Transformer architecture as a new type of neural network that uses attention rather than recurrence or convolutions to figure out how to represent inputs and outputs. It also uses multi-head attention to make sure the model is paying attention to the same information from different representations at different points. Plus, there's a new way to train the model called masked language modeling, which lets pre-train it and fine-tune it for a particular task.

A more detailed review of all models will help us to understand the specifics of each model.

GPT-2

GPT-2 is a language model that was released in 2019. It was the successor to GPT-1 and was one of the most extensive language models of its time, with 1.5 billion possible parameters. The language generation capabilities of GPT-2 were impressive, as it was able to generate sentences, paragraphs, or even entire articles. Nevertheless, it was also subject to criticism for its potential to create false news and misleading information.

GPT-3

GPT-3 was released in 2020 and was one of the first of its kind in terms of its size and capabilities. With 175 billion parameters, it is one of the biggest language models available today. It is capable of performing a wide range of linguistic tasks, such as language translation, question and answer, and text completion. It is also capable of producing high-quality text, which is often compared to human writing. The language generation capabilities of GPT-3 have led to interesting developments in the fields of natural language processing (NLP) and AI writing tools.

GPT-4

Open AI still hasn't released the GPT-4, but as we mentioned before it's expected to be even more robust and powerful than its predecessors. GPT-4 is expected to include more parameters and to be able to handle more complex language operations. We just have to wait and see what kind of changes and improvements it can make.

8. A Closer Look at What Are the Main NLP APIs Available?

There are many APIs available to make your company's NLP applications more robust and accurate. Some of the most popular include sentiment analysis, entity recognition, text categorization, language detection, text generation, and more. While some of these APIs are cloud-based and easy to interact with other applications, others are open-source NLP libraries that require more complex technical setup and operation. When choosing an API, consideration should be given to factors such as customization and control, the complexity of the use case, platforms to support, and ease of integration with third-party tools and services. In comparing these APIs, security, pricing, usability, functionalities available, scalability, precision, and customization options should be taken into account. It is essential to assess the specific requirements of the use case in order to determine which API is most suitable for the application. Let's overview some of them.

- **Open AI GPT-3:** able to perform large amounts of text data, and a variety of NLP tasks, including research, text generation, translation, summarization, question-answering, etc.
- **Google Cloud Natural Language API:** has tools for sentiment analysis, entity recognition, and text categorization.

- **Google Dialogflow:** allows developers to create conversational user interfaces (CUI) into websites, mobile apps, devices, robots, voice response systems, and related applications with third-party platforms.
- **Amazon Comprehend:** offers a variety of NLP features, such as sentiment analysis, entity recognition, and key phrase extraction.
- **Amazon Lex:** this is a service for building conversational interfaces for any application using voice and text.
- **IBM Watson Natural Language Understanding:** provides tools for idea labeling, entity extraction, and sentiment analysis.
- **IBM Watson Assistant:** provides a platform for building conversational interfaces and virtual assistants.
- **Microsoft Azure Cognitive Services:** offers several NLP features, including sentiment analysis, key phrase extraction, and language detection.
- **Microsoft Bot Framework:** provides tools and services for building and deploying conversational bots on various platforms such as Skype, Slack, and Teams.
- **Aylien Text Analysis API:** provides a range of sophisticated text analysis features, including classification, summarization, sentiment analysis, entity extraction, and others.
- **Wit.ai:** enables developers to integrate voice and text conversational interfaces into their applications, providing functionality such as intent detection, context handling, entity extraction, and more.
- **Algorithmia:** cloud platform that helps you run, deploy, and manage algorithms. It comes with a bunch of pre-made NLP algorithms and you can even create and share your own algorithms.
- **spaCy:** this open-source library offers cutting-edge NLP features including part-of-speech tagging, named entity identification, and dependency parsing.
- **Rasa:** open-source library includes a conversational model framework, pre-configured integrations with leading messaging platforms, and multilingual support, allowing developers to build and deploy their own conversational experiences.

9. AI as a Successful Business Model

With each passing year, Artificial Intelligence is making more inroads into the business environment, creating a solid foundation for ever-increasing adoption. [According to recent research by McKinsey](#) [13], the main drivers are increased financial profitability that puts businesses ahead of their competitors. As a result, companies are increasing their investments to accelerate the development of artificial intelligence. Although automation has been on the agenda for some time, it remains a major AI agenda for business. [According to McKinsey](#) [13], robotic process automation (RPA) remains a major application of AI. This allows companies to optimize the operation of services, which is the main option for using AI.



In which industries can companies use conversational AI, we have already listed above, so let's understand the role of Artificial Intelligence in the modern business landscape. There are several key steps to developing a successful conversational AI business model. The first step is to define a niche, then create a high-quality product that can communicate naturally, understand complex queries, and provide accurate answers. In addition, the AI machine must have the ability to support a large number of users and be trained with machine learning algorithms. Secondly, NLP tools may be needed to enable conversational AI to understand natural language queries and provide accurate responses. Integration with existing systems such as customer relationship management (CRM), enterprise

resource planning (ERP), and help desk software can greatly enhance the capabilities of a conversational AI product. This can help streamline customer support, streamline workflows, and provide a more personalized customer experience. Finally, the last step is to create a go-to-market strategy. This strategy should include defining the target audience, analyzing the needs and preferences of the target audience, and developing a marketing plan to target them. This strategy may include creating a website, advertising and content marketing, or attending trade shows. Finally, a conversational AI system should be regularly monitored and optimized to ensure that it meets users' needs and solves their problems. Analytics tools can be used to collect statistics about customer interactions and improve system performance.

A customer guarantee should provide outstanding customer support that will build a loyal customer base in the future and create positive feedback that will enhance your brand image and attract new customers. It is possible to turn your conversational AI product into a profitable business. However, it's important to remember that the AI landscape is constantly changing, so it's important to stay on top of current trends and technologies to stay competitive.

10. Uncovering the Truth: How Reliable AI Is

We are familiar that AI is capable of processing large volumes of data in a short period of time and formulating predictions based on patterns identified in the data. However, their ability to comprehend the larger context or comprehend the nuances of a given situation may result in misinterpretation. Since AI systems only work as well as the data they're trained on and if that data is skewed or incomplete, then the AI's output will be biased and incomplete too.

Moreover, from a limited perspective, in certain circumstances, AI may be given excessive autonomy and control without adequate human supervision. This can result in unforeseen or detrimental consequences that were not anticipated. Where there are huge advantages, there are also risks, as the whole AI system is vulnerable to any weaknesses or biases in the underlying system that underpins it. Generative technologies have the potential to facilitate the production of disinformation for big fans of conspiracy theories or propaganda messages or serve as a source of information search for people who do not have a highly developed criticality of the information. For instance, an AI system like ChatGPT could make a fake history book with a full biography and achievements that never happened. This kind of fake news is especially dangerous in today's world where social media and instant messaging means a single tweet or tweet can go viral in seconds. However, let's take the example of ChatGPT, which we mentioned earlier. The developers warned about similar consequences. If you open the main page of

the ChatGPT, you will see that content “may occasionally produce harmful instructions or biased content”.

Artificial intelligence should be seen as an open-ended project that needs to be thoroughly tested and validated by humans. Remember how you used to Google information for research? Did you trust all the sources you found? Probably not, but artificial intelligence is highly trusted. According to a [McKinsey survey](#) [15] by senior partners Alex Singla, Kate Smaje, and coauthors, more than two-thirds of consumers say that they trust products or services that rely mostly on AI as much as, or more than, those that rely mostly on people.

Finally, nothing is perfect, and AI results are not a reliable tool for making critical decisions.

11. Final Words

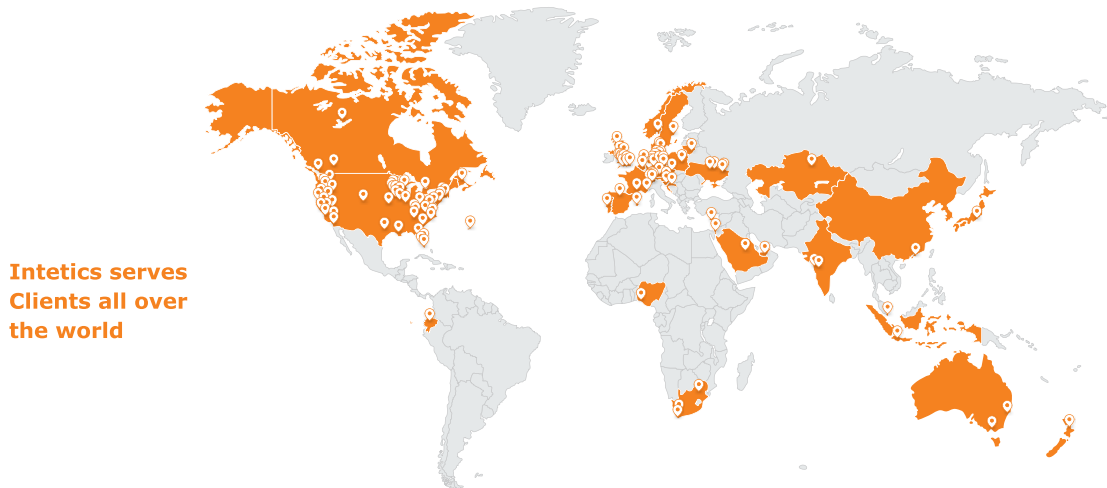
AI has already passed the stage of being useful technology that helps businesses stay on the competitive edge. With its recent advancements in data processing and content generation, it can become a diversified employee to perform simple yet meaningful tasks. Be it a junior developer like ChatGPT, an author or content manager like Neuraltext and Textio, a personal assistant to take notes like Fireflies or to convert text to a voice like Murf, legal advisor like Legal Robot. Everyone can delegate at least some simple tasks to Artificial Intelligence and perform more important tasks, which doesn't only optimize costs but also helps to combat the labor shortage. Recent years have seen a surge in the use of chatbots and virtual assistants powered by deep learning algorithms. Intelligent machines like AI are capable of processing vast amounts of data, recognizing patterns, and making decisions based on that data. APIs can be integrated into various applications to extract and process information, support decision-making in various industries, and facilitate research and discovery. However, successful implementation of conversational AI requires careful planning, experimentation, and constant monitoring to ensure the desired results are achieved. The potential of Artificial Intelligence lies in its ability to perform complex tasks, make accurate predictions, and automate processes that were once only possible for humans, but it will change business in many industries very soon. Being used correctly and in line with consumer expectations, conversational AI can significantly improve our being in numerous ways: from healthcare to a full business tool set.

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[McKinsey Chart of the Day](#)

Intetics Inc. is a leading global technology company providing custom software application development, distributed professional teams, software product quality assessment, and “all-things-digital” solutions built with SMAC, RPA, AI/ML, IoT, blockchain, and GIS/UAV/LBS technologies.



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