



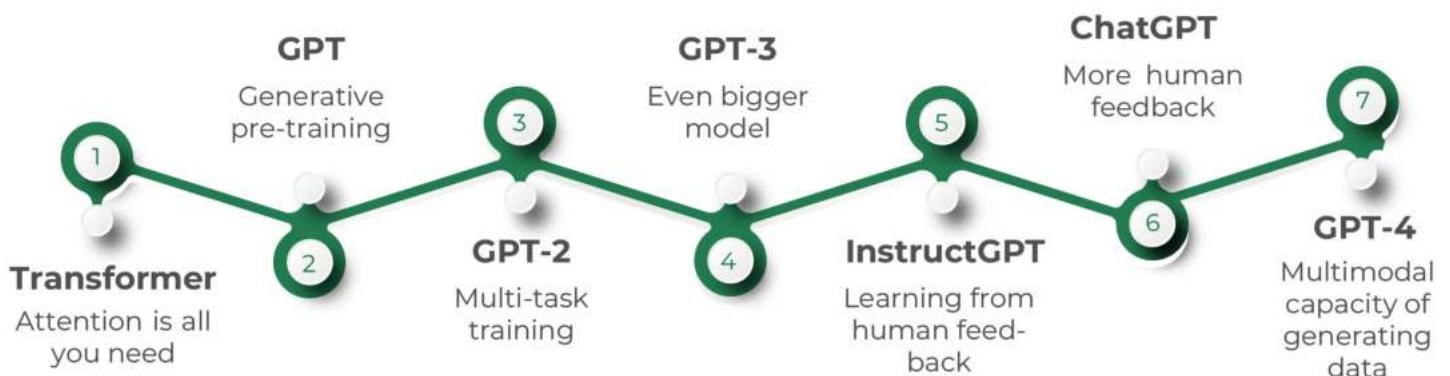
ChatGPT Isn't Just A Tool,  
**It's The Beginning Of**  
**A NEW ERA**

## ChatGPT: A Timeline of Evolution

GPT-4 is the latest version of the GPT (Generative Pre-training Transformer) language model developed by OpenAI. The history of GPT-4 can be traced back to the development of GPT, and is briefly discussed below:

- GPT:**  
The first version of GPT (GPT-1) was released in 2018, and it was trained on a massive dataset of web pages, books, and articles. GPT-1 was able to generate human-like text with high coherence and fluency.
- GPT-2:**  
In 2019, OpenAI released GPT-2, which was trained on an even larger dataset and had the ability to perform a wide range of language-related tasks, such as text completion and question answering. GPT-2 generated text that was even more human-like than GPT-1.
- GPT-3:**  
In 2020, OpenAI released GPT-3, which is considered to be the most advanced version of the GPT model. GPT-3 was trained on a massive dataset of text and can perform a wide range of language-related tasks, such as text summarization, translation, and writing. OpenAI also released several GPT-3 based products such as OpenAI's GPT-3 Playground, GPT-3 in action, and GPT-3 based applications.
- ChatGPT:**  
ChatGPT is the latest version of GPT-3 that has been fine-tuned specifically for conversational text generation, and it is designed to generate highly coherent and fluent text.
- GPT-4:**  
OpenAI's latest and most capable model, GPT-4 was launched on March 14, 2023 and hammers on its multimodal capacity of generating data by scanning texts, images, and videos.

### Evolution From Transformer Architecture to GPT-4





## Which Industries will be Affected, and How?

Since ChatGPT is a conversational AI model, industries with high customer interactions will benefit the most, and customer service is the "foremost use case" for all industries.

The following are examples of ChatGPT use-cases in various industries. While some use-cases may apply to all industries, they may have varying degrees of impact based on the industry's specific needs and requirements.

Use Case		E-commerce & Retail	Logistics	Manufacturing	Real-estate	Legal	Media & Entertainment	Advertising & Marketing	Health-Care	Technology	Travel	Consulting	Financial Services (Banking, Insurance)	Education
Customer Service & Support	Customer Service Support	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact
	Appointment Scheduling	Low Impact	Low Impact	Low Impact	Low Impact	High Impact	Low Impact	Low Impact	High Impact	Low Impact	High Impact	Low Impact	High Impact	Low Impact
Content Generation and Processing	Generating Reports	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact
	Visuals Production	High Impact	Low Impact	Low Impact	Low Impact	Low Impact	High Impact	High Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact
	Translation Services	High Impact	Low Impact	Low Impact	Low Impact	High Impact	High Impact	High Impact	Low Impact	Low Impact	High Impact	Low Impact	Low Impact	High Impact
	Content Creation	High Impact	Low Impact	Low Impact	Low Impact	High Impact	High Impact	High Impact	Low Impact	Low Impact	High Impact	Low Impact	Low Impact	High Impact
Data Analytics	Customized Solutions	High Impact	Low Impact	Low Impact	High Impact	Low Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact
	Customer Behavior Analytics	High Impact	Low Impact	Low Impact	Low Impact	High Impact	Low Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact
	Real Time Analytics	High Impact	High Impact	High Impact	Low Impact	Low Impact	Low Impact	High Impact	High Impact	High Impact	Low Impact	Low Impact	High Impact	Low Impact
	Image Interpretation	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact	High Impact
Decision Support & Optimization	Fraud Detection	Low Impact	Low Impact	Low Impact	Low Impact	High Impact	Low Impact	Low Impact	High Impact	Low Impact	High Impact	High Impact	High Impact	Low Impact
	Inventory Management	High Impact	High Impact	High Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact	Low Impact

**Advertising & Marketing, E-commerce & Retail, Health-care, Financial Services are the top industries where ChatGPT could be a game-changer!**

High Impact Low Impact



**Customer Service & Support**



**Data Analytics & Personalization**



**Content Generation & Processing**



**Decision Support & Optimization**

**Healthcare**

- Provide health insurance inquiries and support.
- Facilitate patient-bot interactions.
- Use as a virtual prosthetics to assist individuals with neurodiversity, such as ADHD and autism.

- Provide personalized medication management.
- Check for symptoms.

- Generate medical reports.
- Summarize patient records.
- Translate technical terms and medical jargon, ensuring patients fully understand their diagnosis, treatment options, and medical instructions.

- Diagnose diseases and give treatment recommendations.
- Discover new drugs through identifying compounds with similar properties.

**Retail/e-commerce**

- Handle return and refund inquiries and processing.
- Generate FAQ section to optimize the user experience.

- Give out product recommendations based on user preferences and browsing history.

- Help with market research.
- Develop websites and applications.
- Provide detailed and accurate product descriptions.

- Identifying customer issues to help improve product quality.
- Enhance inventory management by analyzing sales data, predicting demand, and providing recommendations on stock levels.

**Travel**

- Handle bookings, cancellations, and refunds.
- Provide information about local attractions and activities, such as restaurants, cultural sites, and recreational activities.

- Arrange personalized travel recommendations and itinerary planning.
- Provide real-time updates: flight status updates and changes.

- Consolidate and summarize reviews (hotels, attractions, etc.) by training it on a dataset of hotel reviews.

- Identify and mitigate risks associated with travel such as natural disasters or political instability.

<b>Marketing &amp; Advertising</b>	<ul style="list-style-type: none"> <li>● Deploy chatbots to automate the B2C interactions.</li> </ul>	<ul style="list-style-type: none"> <li>● Develop personalized campaigns.</li> <li>● Suggest marketing tools.</li> </ul>	<ul style="list-style-type: none"> <li>● Write blog posts, social media updates, and product descriptions.</li> <li>● Develop websites and applications.</li> </ul>	<ul style="list-style-type: none"> <li>● Generate leads.</li> <li>● Help with customer segmentation.</li> </ul>
<b>Financial Services</b>	<ul style="list-style-type: none"> <li>● Provide real-time support via chatbot for financial advisory services.</li> <li>● Set up a loan application and processing support.</li> </ul>	<ul style="list-style-type: none"> <li>● Offer personalized investment recommendations and portfolio management tips.</li> </ul>	<ul style="list-style-type: none"> <li>● Generate financial reports.</li> </ul>	<ul style="list-style-type: none"> <li>● Allow financial firms to make better risk-management decisions.</li> <li>● Identify fraud and suggest prevention tools.</li> </ul>
<b>Logistics</b>	<ul style="list-style-type: none"> <li>● Address questions about shipping times, tracking info, etc.</li> </ul>	<ul style="list-style-type: none"> <li>● Provide real-time updates: order tracking and fulfillment status.</li> </ul>	<ul style="list-style-type: none"> <li>● Generate diagnostic reports related to operations.</li> </ul>	<ul style="list-style-type: none"> <li>● Optimize route planning and minimize delivery times.</li> <li>● Enhance inventory management.</li> </ul>
<b>Legal</b>	<ul style="list-style-type: none"> <li>● Answer basic legal questions that customers may have through legal chatbot.</li> </ul>	<ul style="list-style-type: none"> <li>● Give personalized and legal advices.</li> </ul>	<ul style="list-style-type: none"> <li>● Conduct legal research.</li> <li>● Review contracts.</li> <li>● Write legal documents such as contracts, powers of attorney, reports, etc.</li> </ul>	<ul style="list-style-type: none"> <li>● Access to a database of decisions, laws, and judicial trends that contribute to a more strategic and coherent decision-making process.</li> </ul>
<b>Media &amp; Entertainment</b>	<ul style="list-style-type: none"> <li>● Improve user engagement through creating a media-related chatbot experience, where users can review and give their feedback.</li> </ul>	<ul style="list-style-type: none"> <li>● Identify which shows or programs they should recommend to individual users based on their activity.</li> </ul>	<ul style="list-style-type: none"> <li>● Write scripts for films, and interactive video games, as well as generating prompts for novelists...etc.</li> <li>● Act as a character for rehearsal purposes.</li> </ul>	<ul style="list-style-type: none"> <li>● Automate the process of transcribing, which will save time in writing, video and audio editing.</li> </ul>



**Consulting**

- Provide initial consultations for potential clients.
- Identify areas of improvement in a client's business process.
- Create database of case studies and best practices.
- Help consultants with scenario planning and decision making.
- Help with market research.
- Improve profitability through resource allocation and ensuring that the right people are working on their respective projects.

**Manufacturing**

- Provide help with delivery queries and relevant information on products through chatbot.
- Monitor data to analyze data collected from sensors and actuators on machines and plants, identify anomalies and generate alarms.
- Generate automatic documentation on production processes, maintenance, or safety.
- Implement and suggest predictive maintenance actions to anticipate issues and generate recommendations for improved safety.

**Technology**

- Provide troubleshooting tips through a chatbot.
- Extract insights from large, unstructured data using natural language processing.
- Write out codes for any programming language, give accurate syntactical feedback as well as suggest better ways to code based on popular data structures and algorithms.
- Write an automation script to test the scenarios using Java and Selenium.
- Build system architecture from scratch for developing your software product.
- Provide predictions about potential technological mishaps.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Real-Estate</b></p> <ul style="list-style-type: none"> <li>● Engage with potential buyers by offering personalized advice.</li> </ul>	<ul style="list-style-type: none"> <li>● Analyze real-estate market trends.</li> <li>● Conduct property search for possible buyers based on their preference.</li> <li>● Give virtual tours of properties for customers.</li> </ul>	<ul style="list-style-type: none"> <li>● Create and update property listings.</li> </ul>	<ul style="list-style-type: none"> <li>● Provide accurate valuations of property by analyzing data on property sales.</li> <li>● Monitor lease compliance by notifying them of upcoming lease expirations and any potential breaches of lease agreements.</li> </ul>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>Education</b></p> <ul style="list-style-type: none"> <li>● Use as a virtual tutor to ask questions and get instantaneous feedback.</li> </ul>	<ul style="list-style-type: none"> <li>● Provide personalized rubrics for students.</li> </ul>	<ul style="list-style-type: none"> <li>● Generate instant translation, pronunciation and grammar corrections.</li> <li>● Develop curriculum materials, such as lesson plans, activities, and assessments.</li> </ul>	<ul style="list-style-type: none"> <li>● Predict students' academic outcome and give insights on areas where they need support by analyzing their historic trends.</li> <li>● Formulate learning paths.</li> </ul>

By 2025, Brian Burke, research VP for technology innovation at Gartner expects more than 30% - up from zero today - of new drugs and materials to be systematically discovered using generative AI techniques.

As per a Reuters report, Suffolk University Law School Dean Andrew Perlman set what could be a new world record, when he wrote a 14-page law article in just one hour - with ChatGPT's assistance.

According to BCG, strategy consultancy projects with static outcomes will rapidly diminish, which will give rise to scientifically backed AI-driven strategies enhanced by data. The Googles and Amazons could well become the new-age consultancy companies.



## General Limitations: Where the Machine Stops, the Human Comes Forward

ChatGPT **requires substantial computational resources and technologies to be able to operate efficiently**, which can be expensive and cost-intensive. Operating on old hardware and software systems may result in a slow processing time for the machine and other performance issues.

ChatGPT may sometimes provide inaccurate or incomplete information, which could lead to misunderstandings or confusion, as with other AI technologies, **humans are still required to review and correct AI-generated texts**. That editing is often complicated and requires real knowledge of a subject.

ChatGPT is trained to use a **limited data set**, it's not updated in real time through internet connections; which means the output of the AI machine will also be limited to its training period that ended in 2021. However, this is considered a short-term limitation, since the data set will inevitably and regularly be updated.

ChatGPT is also trained to confidently predict a sequence, so **the output might not always be accurate or reliable** although it might sound plausible, which is what referred to as **"AI hallucinations"**.

ChatGPT presents convenience and speed, **which might lead to an over-reliance on AI-generated content and reduce critical thinking, problem-solving, and creativity**.

AI technologies like ChatGPT **can inherit biases from the data they are trained on**, which may result in biased or unrepresentative content generation.

ChatGPT **has limited creativity**, in that it does produce content when given the correct prompts and aids massively in many processes, however, it can't produce creative leads or opinions.





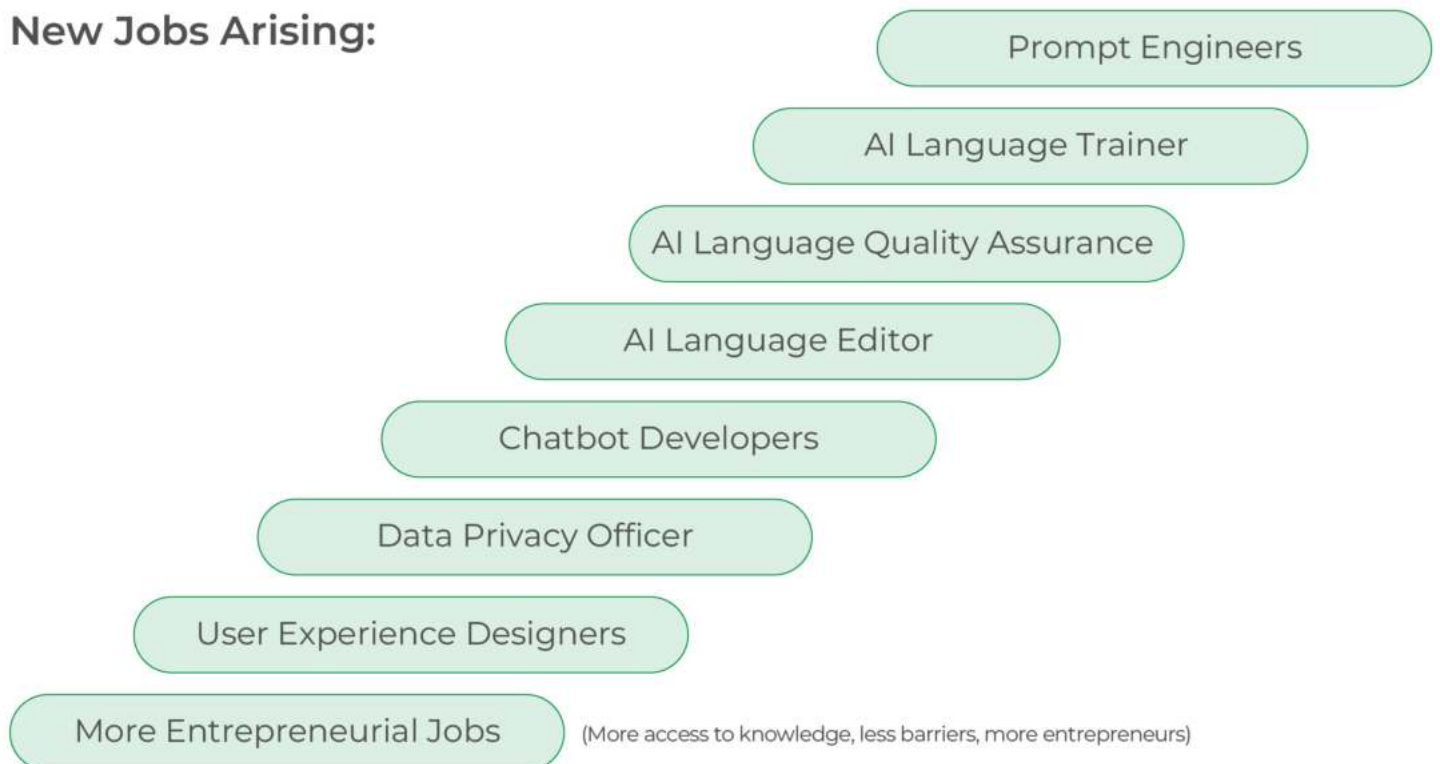
## What Are The Emerging And At-Risk Job Trends In the Market? How Will Profile Of Employees Change?

ChatGPT will not replace most of the roles, but it will change the skill requirement of the roles. Technology skills, along with other cognitive skills will be the new combo for the future.

### Jobs at Risk:

Programmers	Technical Support Professionals
Accountants	Market Researchers
Content Creators	Marketing Professionals
Customer Service Representatives	News Reporter
Call Center Agents	Writers & Editors
Translator	Data Entry
Administrative Assistants	Business Analysts
Virtual Assistants	Software Engineers

### New Jobs Arising:

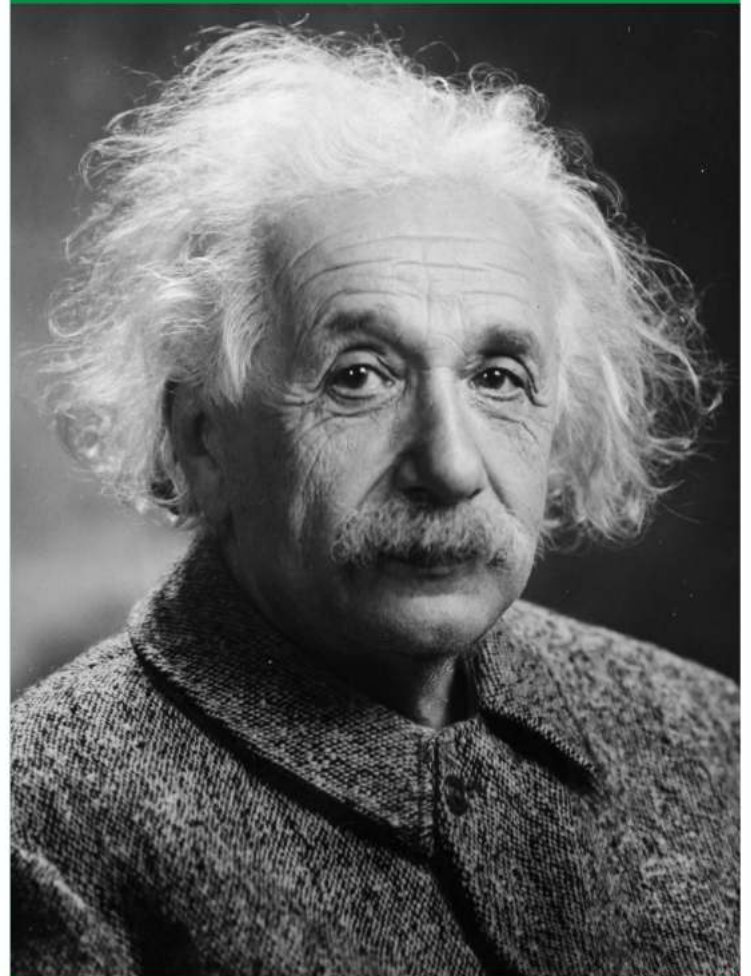


## New skills to Be Acquired:

- ▶ **The Ability To Ask Right Questions:**  
asking thoughtful, purposeful questions that are designed to elicit the information needed to make informed decisions and achieve specific goals.
- ▶ **Cognitive Flexibility:**  
to be cognitively flexible and able to adapt to new information and ways of thinking may be better equipped to work with these systems.
- ▶ **Interdisciplinary Thinking:**  
integrating knowledge and methods from multiple disciplines or fields of study to solve complex problems and generate new ideas.
- ▶ **Curiosity And Experimentation:**  
Being curious and willing to experiment with new tools and approaches may be better positioned to leverage these technologies to their full potential.
- ▶ **Interpersonal Skills:**  
To effectively communicate, collaborate, and build relationships.
- ▶ **A Catalytic Learning Capability:**  
Having the capacity to scan for new ideas, the cognitive capability to absorb them, and the common sense to translate that new learning into productive action for their customers and their organizations.
- ▶ **Critical thinking**  
The ability to analyze information, evaluate arguments, and make sound judgments.

*“If I had an hour to solve a problem and my life depended on the solution, I would spend the first 55 minutes determining the proper question to ask for once I know the proper question, I could solve the problem in less than five minutes.”*

**- Albert Einstein -**





## ChatGPT Across Borders: How Did MENA Region Embrace Innovation?

### UAE



Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai asked authorities to run studies on how to best utilize ChatGPT for governmental purposes, including education, health and more.



The UAE Cabinet approved a policy to raise the efficiency of government work through the use of AI technologies. The policy includes standards and guidelines that guarantee safe use of AI.



UAE is actually in the process of building their own local ChatGPT, Falcon LLM, with the goal to minimize dependency on large language models made by major tech players, and develop UAE's government capabilities. The local AI machine also competes with modern AI tools like GPT-3.



Dubai Electricity and Water Authority (DEWA) will be the first utility provider worldwide and the first UAE government entity to integrate ChatGPT technology to enhance its services.



The Federal Authority for Government Human Resources in UAE held a training workshop on ChatGPT Technology, its mechanism of action and its uses to serve government work.

### KSA



The SaudiGovGPT is a ChatGPT-based interface that helps with government services and has just been launched weeks ago; further proving that the MENA region is either coming up with new ways to localize AI tools similar to ChatGPT, or to further integrate ChatGPT in its system.

## In What Ways Can ChatGPT Prove to be a Game-Changing Technology for Businesses Operating in Emerging Markets?

Developing economies generally lag in the adoption of digital technologies and risk repeating this pattern with the latest frontier technologies.

An UNCTAD readiness index that assesses countries' abilities to use, adopt and adapt frontier technologies highlights the leading position of developed economies, showing that developing countries still struggle with issues like digital skills, infrastructure, and education.

### Limited Access To Technology

- ▶ A lack of adequate infrastructure and high costs can significantly impede businesses in emerging markets from accessing critical technologies. This can result in limited competitiveness and hinder growth potential.

Description

- ▶ ChatGPT could provide training resources and tutorials on how to use specific technologies.
- ▶ Chatbots can be used to automate customer support and reduce the need for human resources.

Solutions

### Limited Business Support And Market Visibility

- ▶ In emerging markets, businesses often face a lack of support and visibility in their respective industries. Without proper guidance, businesses may struggle to nurture their ideas, establish their brand or grow their business.

Description

- ▶ ChatGPT can help small business owners and entrepreneurs by providing advice and guidance on starting and running a business.
- ▶ ChatGPT can provide guidance on market research, product development, and customer experience.

Solutions



## Substandard Education

- Many emerging markets lack access to quality education, which can result in a shortage of skilled workers, limited innovation, and reduced competitiveness.

Description

Solutions

- ChatGPT can support education in emerging markets by providing access to educational resources, tutoring, and test preparation. This can help bridge the education gap and improve literacy rates.
- ChatGPT can help teachers in developing curriculum materials, such as lesson plans, activities, and assessments. It can provide ideas and suggestions based on the subject matter and grade level.
- ChatGPT can provide guidance to students on career choices and paths. It can suggest career options based on their interests, skills, and strengths and provide information on the job market and salary expectations.

## Lack Of Skilled Workers

- The dearth of skilled workers in numerous emerging markets can create significant challenges for businesses striving to thrive and expand. Such scarcities may stifle innovation and hinder the ability to compete on a global scale.

Description

Solutions

- ChatGPT can help HR managers to develop customized training programs for unskilled workers. By analyzing the skill gaps, ChatGPT can recommend specific training modules that are tailored to the needs of each worker.
- ChatGPT can provide just-in-time solutions, which includes providing answers to questions, offering quick training modules, or providing on-demand support for specific tasks.

## Limited Financing Options

- › Many businesses in emerging markets may struggle to access funding, including loans and grants, to support their growth and expansion. This can limit their ability to invest in new technologies, hire skilled workers, or expand operations.

Description

Solutions

- › ChatGPT can provide information on different financing options and how to access them, such as loans, grants, and venture capital. It can provide guidance on the application process and suggest alternative funding sources.
- › ChatGPT can offer guidance on financial management practices that can help businesses make the most of their limited funding. This can include developing budgets, managing cash flow, and optimizing financial processes.
- › ChatGPT can advise on Investor Pitching in preparing and delivering an investor pitch, which is a critical step in securing funding. This can include tips on how to communicate the business's value proposition, financial projections, and growth potential.



# On the Digital Side, How To Maneuver Digital Curve Balls in Businesses Through ChatGPT?

## Legacy Systems Integration

- › Many businesses struggle with legacy systems that are outdated and inefficient, making it difficult to integrate new technologies into their operations.

Description

Solutions

- › ChatGPT can help identifying integration solutions that can help businesses connect their legacy systems with newer technologies.
- › ChatGPT can help with providing guidance on system architecture that supports integration between legacy systems and newer technologies.
- › ChatGPT can help develop customized integration solutions that meet the specific needs of a company. This includes creating customized APIs or developing integration workflows that are tailored to the business processes of a company.

## Cybersecurity Risks

- › Technologically challenged businesses may not have robust cybersecurity measures in place, leaving them vulnerable to attacks and data breaches.

Description

Solutions

- › ChatGPT can provide recommendations for cybersecurity tools and best practices to help businesses identify and mitigate potential vulnerabilities.
- › ChatGPT can assist with incident response in the event of a breach.
- › ChatGPT can provide cybersecurity training to employees, ensuring they are aware of cybersecurity risks and best practices. This can include training on password management, phishing scams, and social engineering attacks.

## Lack Of Digital Skills

- › Many businesses in emerging markets may not have the necessary digital skills or knowledge to implement and maintain new technologies.

Description

Solutions

- › ChatGPT can provide training materials and resources to help businesses build the necessary digital skills and knowledge among their employees.

## Lack of Automation and Digitization in Operations

- › Many businesses in emerging markets rarely integrate technologies to automate their operations or enhance their technological infrastructure.

Description

Solutions

- › ChatGPT can recommend automation solutions that can be implemented to improve operational efficiency. This can include robotic process automation (RPA), workflow automation, and chatbot automation.
- › ChatGPT can provide user training on new automation and digitization solutions. It can create training resources, such as video tutorials and user manuals, to ensure that employees know how to use the new tools effectively.

## Employee Resistance To Change

- › Employees may be resistant to change, especially if they are not comfortable with new technologies. This can slow down the adoption and implementation of digital transformation initiatives.

Description

Solutions

- › ChatGPT can provide training materials and resources to help employees become more comfortable with new technologies.
- › ChatGPT can facilitate collaboration and communication between employees and teams as they adapt to new technologies and changes in processes.



# ChatGPT in Government: Building Smart Governments with ChatGPT

## How ChatGPT Can be leveraged to maximize government efficiency?

### Internal Efficiency

All public sector departments deal with a lot of paperwork. Manual data entry or verification consumes a lot of time and resources, making it difficult to provide quick services to the public.

**ChatGPT** can potentially automate government tasks at unprecedented speed, scale, and volume through helping with manual paperwork, data collection, and reporting, while lowering headcounts in administrative departments. Internal efficiency can be further increased in ways that cut public waiting times for specific services.

### Public Relations

**Customer service chatbots:** Chatbots are the most common use case of ChatGPT in government. Chatbots enable governments to perform a variety of tasks, including:

- Scheduling meetings
- Answering FAQs
- Directing requests to the appropriate area within government
- Filling out forms
- Assisting with searching documents

### Policy-making

Agencies and policymakers can leverage ChatGPT to conduct citizen-centric smart policymaking. It can provide advanced analytics on public data, allowing policymakers to identify emerging issues related to their regions and constituents. For example, the National Weather Service is using AI to improve weather forecasting and alert systems, helping to better protect the public from severe weather events. Also, it could predict the impact of policy reforms in various scenarios.

### Cash Flow Enhancement

Some use cases in the sector could have a meaningful, direct impact on government cash flows, such as advanced analytics to detect fraud and incorrect payments in grant and transfer systems or tax evasion—which are often significant sources of financial leakage.

### Services Enhancement

The integration of **ChatGPT** in services such as healthcare and public transportation allow real time tracking of patient's health and automatically notifying respective doctors of any possible risks, reduce road safety issues through analyzing accident-related data, and predicting maintenance as well as deploying preventative measures. **ChatGPT** can also positively affect the education sector through improving access and maintaining a more personalized approach.

### Information Dissemination

**ChatGPT** can be used to ease the process of transferring information from the government to its citizens, such as real time public health alerts and updates on certain policies.



## So, How Can Governments Embrace AI Into Their Economies And Industries To Drive Growth And Development?

Since ChatGPT won't be the end of OpenAI's creations and other AI tools in general, developing countries need to jump ship and catch up to benefit from AI through promoting the technology's use, adoption, adaptation and development. There isn't a single strategy that's written in stone, there are many areas where actions could be done:

**Prioritize the Development of Digital Skills and Complementary Skills.** This will prepare the workforce for the demands of the 21st century job market.

**Promote Government-funded Research** to seed high-quality research efforts aimed at developing fundamental novel AI techniques, algorithms, and adjacent technologies

**Foster Collaboration between Academia, Industry, and Government agencies.**

This can foster innovation and knowledge sharing, which can help to accelerate the adoption of AI technologies.

**Implement Reskilling Programs** to support workers who may lose their jobs due to new technologies. This should be a joint effort between governments, employers, and workers to ensure life-long learning opportunities are available to all.

**Promote Inclusiveness** to ensure the benefits of new technologies are widely shared. An open innovation approach for AI, where inputs, methods, and results are shared with a diverse range of stakeholders, can promote innovation and broaden access to benefits.

**Incentivize AI Adoption.** Governments can encourage AI adoption by offering incentives to companies that adopt AI technologies. This can include tax breaks, grants, and low-interest loans.

**Establish Ethical Frameworks and Regulations** to ensure that AI models are developed and used responsibly. As the impact of these technologies is felt by all, it is critical to establish guidelines to ensure that the benefits are shared equitably, and the risks are minimized.

## Meet the Contributors

### **Seif Rabie**

**Principal & Head of Business Development in Egypt at LOGIC Consulting**

Seif has over 13 years of professional experience in strategy consulting, government investment promotion, risk management for microfinance, and digital transformation & innovation management.

#### Cairo Office:

+20 012 7350 5023  
Capital Business Park,  
Building 7, 2nd Floor, 202,  
El Sheikh Zayed Giza, Egypt

#### Riyadh Office:

+96 (6) 545 201 281  
7069 King Fahd Road, 2416  
Al Sahafa District, Hetal  
Tower, 7th Floor, 13315  
Riyadh, KSA