A Study On Artificial Intelligence In Ecommerce Industry

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Abstract:

Artificial intelligence isn't just a novel technology implemented for its "cool factor." Implementing AI has the potential to impact any number of business functions across your organization. .At its core, Artificial Intelligence is a constellation of many different technologies that are capable of performing tasks requiring human intelligence. When applied to the usual business tasks, these technologies can learn, act, and perform with human-like levels of intelligence. It is used to simulate human intelligence in machines, saving us a lot of time and money in doing business. To understand how it could impact your business, it helps to have an understanding of the components of artificial intelligence. Besides product recommendations, online merchants use ecommerce intelligence to provide Chabot services, analyze customer comments, and offer personalized services to online shoppers. AI plays a crucial role in e-commerce by enabling businesses to analyze and understand customer behavior patterns, enhance the shopping experience, and streamline various process.

Key words: Intelligence,Processsing,Technology,Behaviour,Industry

Introduction:

Artificial intelligence (AI) has made great strides in recent years, but most people are still confused about exactly what it is. To start, you have to understand what AI means – "Artificial Intelligence" is the capability of a machine to imitate intelligent human behaviour. It has been defined as machines being able to respond to their environment with little or no human input. Artificial intelligence isn't just one thing. It is a collection of different technologies that work together to perform specific tasks. These other computer programs are designed to automate human endeavours by learning from past experiences and establishing criteria. Some typical applications of artificial intelligence include web search engines, computer vision, and natural language processing..

- Data mining refers to the gathering of both current and historical data to inform predictions.
- Natural language processing focuses on human-computer interaction and how computers interpret natural human language.
- Machine learning concerns using a collection of algorithms to apply past experience or provide examples to solve a problem. Deep learning "involves layering algorithms in an effort to gain greater understanding of the data."

Over the past couple of years, AI technology has matured and become a powerful tool to boost sales and optimize operations. Even many small ecommerce businesses are using technology with some kind of AI capability.

Artificial Intelligence (AI) is the field of computer science dedicated to solving cognitive problems commonly associated with human intelligence, such as learning, problem solving, and pattern recognition. Artificial Intelligence, often abbreviated as "AI", may connote robotics or futuristic scenes,AI goes well beyond the automatons of science fiction, into the non-fiction of modern day advanced computer science. Professor Pedro Domingos, a prominent researcher in this field, describes "five tribes" of machine learning, comprised of symbolists, with origins in logic and philosophy; connectionists, stemming from neuroscience; evolutionaries, relating to evolutionary biology; Bayesians, engaged with statistics and probability; and analogizers with origins in psychology. Recently, advances in the efficiency of statistical computation have led to Bayesians being successful at furthering the field in a number of areas, under the name "machine learning". Similarly, advances in network computation have led to connectionists furthering a subfield under the name "deep learning". Machine learning (ML) and deep learning (DL) are both computer science fields derived from the discipline of Artificial Intelligence.

AI Is Bringing Change to the Ecommerce Industry

Artificial intelligence isn't just a novel technology implemented for its "cool factor." Implementing AI has the potential to impact any number of business functions across your organization. To understand how it could impact your business, it helps to have an understanding of the components of artificial intelligence. The definition of AI is broad, and encompasses data mining, natural language processing, and machine learning.

- Data mining refers to the gathering of both current and historical data to inform predictions.
- Natural language processing focuses on human-computer interaction and how computers interpret natural human language.
- Machine learning concerns using a collection of algorithms to apply past experience or provide examples to solve a problem. Deep learning "involves layering algorithms in an effort to gain greater understanding of the data."

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Using Artificial Intelligence in Ecommerce Companies

1. More targeted marketing and advertising.

Personalization is a top priority, according to surveyed retailers, but only 15% say they've fully implemented personalization across channels. Stand out from the crowd with a more personalized message and have one-to-one conversations with your customers. Advances in AI and machine learning have enabled deep personalization techniques to customize content by user. By analyzing big data from purchase histories and other customer interactions, you can zero in on what your customers really want and deliver the message that will most resonate.

2. Increased customer retention.

Delivering targeted marketing and advertising messages personalized for their customers can increase retention. McKinsey omnichannel personalization research indicated there's a 10-15% uplift potential in revenue and retention from omnichannel personalization strategies. The report reads: "A critical element of personalization is building better data and insights on customers, an asset that also generates additional value across the value

chain. … Our research suggests the ROI for personalization will quickly outpace that of traditional mass marketing."

3. Seamless automation.

The goal of automation is to accomplish a task with as little human intervention as possible. That can mean anything from scheduling emails in a CRM or marketing tool, using Zapier to automate tasks or leveraging advanced technology to help with hiring. In the context of future ecommerce trends, however, some of the most commonly talked about today are robotics and machine learning. AI can play a big role in helping you automate the repetitive tasks that keep your online store functioning. With AI, you can automate things like product recommendations, loyalty discounts, low-level support, and more.

4. Efficient sales process.

Using AI can help you create a more efficient sales process by gathering data about your customers, automate follow-up abandoned cart inquiries, and more. You can help move customers through the funnel by having them engage with chatbots for simple questions.

AI Use Cases in Ecommerce

There are plenty of use cases in ecommerce for AI, and you're probably familiar with a lot of them — you just might not know that the technology they're built on is actually related to AI. Here are six of the most common:

1. Personalized product recommendations.
2. Pricing optimization.
3. Enhanced customer service.
4. Customer segmentation.
5. Smart logistics.
6. Sales and demand forecasting.

1. Personalized product recommendations.

It's easier than ever to collect and process customer data about their online shopping experience. Artificial intelligence is being used to offer personalized product recommendations based on past customer behavior and lookalike customers.Websites that recommend items you might like based on previous purchases use machine learning to analyze your purchase history. Retailers rely on machine learning to capture data, analyze it, and use it to deliver a personalized experience, implement a marketing campaign, optimize pricing, and generate customer insights. Over time, machine learning will require less and less involvement from data scientists for everyday types of applications in ecommerce companies.

2. Pricing optimization.

AI-enabled dynamic pricing is a strategy of changing your product price based on supply and demand. With access to the right data, today's tools can predict when and what to discount, dynamically calculating the minimum discount necessary for the sale.

3. Enhanced customer service.

With virtual assistants and chatbot technology, you can deliver the appearance of higher touch customer support. While these bots aren't completely self-reliant, they can facilitate simple transactions, leaving live support agents able to focus on more complex issues.

Virtual agents also have the advantage of being available 24/7, so low-level questions and issues can be addressed at any time of day, without making your customer wait.

4. Customer segmentation.

Access to more business and customer data and processing power is enabling ecommerce operators to understand their customers and identify new trends better than ever.In an insight from Accenture, they write, "AI systems can explore highly complex and varied options for customer engagement very quickly, and continuously optimize their performance as more data becomes available. This means marketers can set parameters and allow the AI to optimize and learn to achieve precision."

5. Smart logistics.

According to a report from Emerging Tech Brew, "Machine learning's predictive powers shine in logistics, helping to forecast transit times, demand levels, and shipment delays." Smart logistics or intelligent logistics, is all about using real-time information through sensors, RFID tags, and the like, for inventory management and to better forecast demand. Machine learning systems become smarter over time to build better predictions for their supply chain and logistics functions.

6. Sales and demand forecasting.

Particularly in a world during and after COVID-19, you'll want to plan your inventory on both real-time and historical data. Artificial intelligence can help you do just that. A recent McKinsey report suggests that investment in real-time customer analytics will continue to be important to monitor and react to shifts in consumer demand that can be harnessed for price optimization or targeted marketing.

How to Implement Artificial Intelligence In to Ecommerce

It's always tempting to jump into new, exciting technologies. But you'll want to have a roadmap before jumping into implementing a new program, to make sure you don't lose a lot of time and money on false starts.

1. Create a strategy.

You have to start somewhere — and your strategy will lay out the path you need to take from there to your AI goal. Don't just punt this to a newly hired AI expert or your CIO or CTO. Really put some thought into what you want to accomplish with AI. Take a practical approach, and don't forget to start small. You can always build on your successes down the road.

2. Find narrow use cases that are relevant to the overall corporate strategy.

The most successful AI use cases live at the intersection of business objectives, data differentiation, and readily available artificial intelligence models. All that to say — you should focus on revenue-generating opportunities where you have a data advantage and in a context appropriate for proven AI technology.

3. Leverage third-party expertise.

Even if you're an armchair AI aficionado, you'll want to accept expert assistance on this one. Bring in a tiger team on a project or part-time basis to dig in and help you build a strategic AI roadmap. Those third parties can be helpful in bringing your MVP (minimum viable product) to life as well.

4. Build a full-scale solution.

Once you're confident in what your team has produced, it's time to build the full scale solution. Don't be surprised if it still takes some iterations before it works like you expect. As you and your team become more comfortable working in the realm of AI, you'll start to see greater benefit from the projects you implement.

Wrapping Up

Tomorrow's AI sounds like it's straight from the movies, but there's plenty of AI technology today that may look less glamorous improving customer experience, increasing conversion rates, and helping to streamline the way the business is run.If you want to deliver the best possible shopping experience on your ecommerce website, look into the various benefits of artificial intelligence and machine learning. It can help you make better use of your customer and business data to set a plan for your future that will work.

Powerful Ways to Use Artificial Intelligence In ecommerce.

1. Create customer-centric search.

Amir Konigsberg is the current CEO of Twiggle, a business that enables ecommerce search engines to think the way humans do. Watch any recent interviews with Amir and he will tell you that consumers often abandon eCommerce experiences because the product results displayed are often irrelevant.To tackle this problem, Twiggle utilizes natural language processing to narrow, contextualize and ultimately improve search results for online shoppers.Another business that is trying to improve e-commerce search is US-based tech start-up Clarifai. Clarifai's early work has been focused on the visual elements of search and, as its website states, the software is 'artificial intelligence with a vision'.The company enables developers to build smarter apps that 'see the world like you do', empowering businesses to develop a customer-centric experience through advanced image and video recognition.Leveraging machine learning, the AI software automatically tags, organizes and visually searches content by labeling features of the image or video.

2. Retarget potential customers.

According to Conversica, at least 33% of marketing leads are not followed up by the sales team. This means that pre-qualified potential buyers interested in your product or service, fall through the inevitable cracks. Furthermore, many businesses are overloaded with unmanageable customer data that they do little or nothing with. This is an incredible goldmine of intelligence that could be used to enhance the sales cycle.

For instance, if we take a deeper look at the retail industry, facial recognition is already being used to capture shoplifters by scanning their faces on CCTV cameras. Some businesses are now using facial recognition to capture customer dwell times in the physical store.This means that if a customer spends a notable amount of time next to a specific product e.g. an iPod, then this information will be stored for use upon their next visit

As AI develops, we anticipate special offers on customer's computer screens based on their in-store dwell time. In other words, omni-channel retailers are starting to make progress in their ability to remarket to customers. The face of sales is changing with businesses responding directly to the customer. It is as if businesses are reading the minds of customers and it's all thanks to the data used with AI.

3. Identify exceptional target prospects.

New AI technology arms e-commerce businesses with the timely intelligence required to solve their business challenges such as lead generation.Predictive marketing businesses such as Mintigo, provide AI solutions for marketing, sales and CRM systems. Through Mintigo's software, Getty images has successfully generated

significant new leads by capturing the data that shows which businesses have websites featuring images from Getty's competitors.

4. Create a more efficient sales process.

Thankfully, just about all of us have moved on from the days of old sales techniques such as picking up the trusty Yellow Pages and pestering potential clients through cold-calling.Customer's lives are now heavily influenced by a variety of different media from TV adverts to social media. In fact, in the past 12 months, even Snapchat has established itself as a viable sales and marketing tool, opening up new opportunities.

If you want to tailor your problem-solving solutions and create a strong sales message that reaches consumers at the right time on the right platform, then integrating AI into your CRM is the way to go.Many AI systems enable natural language learning and voice input such as Siri or Alexa. This allows a CRM system to answer customer queries, solve their problems and even identify new opportunities for the sales team. Some AI-driven CRM systems can even multitask to handle all these functions and more.

5. Create a new level of personalisation across multiple devices.

Personalisation is nothing new for eCommerce and if you frequently use Amazon then you'll know exactly what we're referring to. However, with the ever-increasing advances in artificial intelligence and machine learning technologies, new deep levels of personalisation have started to penetrate the fast-growing e-commerce world. Whereas AI based personalisation for eCommerce takes the multi-channel approach. New AI engines, such as Boomtrain, sit on top of the multiple customer touch points to help the business analyse how customers are interacting online.

Whether it is a mobile application, the website, or an email campaign, the AI engine is continuously monitoring all devices and channels to create a universal customer view. This unified customer view enables eCommerce retailers to deliver a seamless customer experience across all platforms.The next time a customer is browsing iPhone cases on your website, they may receive a push notification on their mobile, informing them about your flash sale for iPhone cases. They directly make the purchase on their phone, saving a lot of steps for both parties.

6. Provide a personal touch with chatbots.

A tornado of technological advances has changed consumers' expectations, and commerce is now focused on building experiences for the individual, and not the mass market. For consumers, there are a multitude of touch points and influences that generate purchases.Many eCommerce retailers are already becoming more sophisticated with their AI capabilities in capturing attention, and one approach widely developing is known as 'conversational commerce'.

In the eCommerce world, this is the confluence of visual, vocal, written and predictive capabilities. Consumer needs are rapidly evolving to the point that retailers struggle to keep up.If brands wish to survive then this is one of the priority business strategies that must be executed. The use of artificial intelligence through the application of 'chatbots' is just one way to drive the conversation in this next era of conversational commerce.

7. Empower store workers.

Whilst online retailers have experimented with chatbots, there has also been some consideration of how to replicate the helpful experience in-store.Lowe, a home improvement store, is a good example of such implementation. Lowe introduced the first autonomous robot in late 2014, named the LoweBot.

The tall shopping assistant greets customers at the door, guides them around the store, sources relevant product information and even assists employees with inventory management.This helps Lowe to free up their experienced store workers to engage in more meaningful interactions with customers.

8. Implement virtual assistants.

All of us need a little help online sometimes.After all, what are cloud-based AI software agents for?We're all familiar with the usual suspects: Siri, Google Now and Alexa, and they have successfully introduced us to the idea of talking to a phone, laptop or even a home appliance.

However, the evolution of many of these virtual assistants have already become boring commodities for the user, with limited useful updates in recent months.The advances for virtual assistants are rooted in natural language processing and the machine's ability to interpret what people are saying in words or text.

9. Integrate with everyday household items.

There are few more interesting examples of AI integration than the partnership between Amazon's Alexa and LG's Smart InstaView refrigerators.LG have experimented with several previous versions of the InstaView refrigerator with enormous touchscreens built into the door. However, this time around, LG has tacked on a virtual assistant and webOS software. It's a place where a virtual assistant has real potential to be especially helpful.

In addition to providing news and weather updates, it can lend a hand with your shopping orders. You'll never have to run to the shop for milk again. Imagine the possibilities for eCommerce retailers that have direct access to the homes of consumers.

10. Improve recommendations for customers.

Using AI, brands can more intelligently and efficiently scan through petabytes of data to predict customer behavior, and offer relevant and helpful recommendations to individual consumers.This level of intelligence is vital in delivering a personalized shopping experience for the consumer.Starbucks has been heavily involved with this process, utilizing AI to analyse all the data it has gathered on its consumers and delivering more personalized suggestions.

11. Introduce virtual personal shoppers.

We discussed the concept of virtual assistants in #8, but AI is also enabling brands to create purposely-built 'shoppers' to assist their customers online.There are many perks of in-store shopping that both brands and customers love. For instance, the customer has the opportunity to directly engage in conversation with a shop assistant.

They may ask the customer about a specific item in a particular color or size. These perks are limited online as customers have to go through the time-consuming (and sometimes frustrating) process of ticking boxes or entering keywords.With this in mind, eCommerce retailers must find innovative new ways to bring the perks of offline experience to the online experience.

Flipkart, the Indian-based eCommerce company, has already made attempts to build human brain-like capabilities in order to sell smarter to more than 45 million of its registered online buyers.In fact, the business launched a messaging service called Ping. Until it was shut down in 2016, Ping served as a shopping assistant. The service embodied artificial intelligence to enable customers to quickly discover the items they were looking for.

12. Work with intelligent agents.

New intelligent agent negotiation systems have become a popular tool used in eCommerce, following the development of artificial intelligence and agent technology.There are three main functions performed by the automated agent:matching buyers and sellers; facilitating transactions; and providing institutional infrastructure.

The agents are completely automated and have full control over their actions. They have their own communication language and not only react to their environment, but are also capable of using their initiative such as generating their own targets.It's AI at its utmost brilliance, and finally they are useful for eCommerce.

13. Build an 'assortment intelligence' tool.

Customers are forcing retailers to change their pricing strategies. Therefore, it is imperative that multichannel retailers apply flexibility when it comes to their price structuring, in order for them to retain customers.Retailers are turning to assortment intelligence, a tool that facilitates an unprecedented level of 24/7 visibility and valuable insights into competitors' product assortments.

Businesses can monitor their competitors' product mix, which would be segmented by product and brand as well as the percentage of overlap. This intelligent tool then provides businesses with the ability to quickly adjust their own product-mix and pricing with high accuracy.An impressive competitive advantage that provides complete visibility into what products are being offered in the market. The intelligent software puts retailers in a strong position to make specific assortment and planning decisions, and track the business impact of those actions.

14. Bridge the gap between personalization and privacy.

Whenever it comes to discussing the topic of personalisation, there is often a trade off with concerns to user privacy. User privacy has been a hot topic in recent years with its importance considered stronger than ever. Brands are actively striving to take transparency, security and honesty to an entire new level. However, to achieve this, brands cannot afford to abandon user personalisation, given its critical role in any successful e-commerce venture.

So, how can eCommerce retailers tackle this problem? Many brands believe the answer lies with artificial intelligence.Users are a little more comfortable with sharing their details on the promise they are getting something truly valuable in return.For example, if you give Google Now access to your account, it will sync your calendar, emails and search habits.

15. Generate sales through wearable technology.

We're all aware of the important role that mobile plays in e-commerce sales.In fact, according to Shopify, 2016 saw mobile overtake other channels as the primary source of e-Commerce traffic. As products such as the Apple Watch, Fit Bit and other forms of wearable technology enter the e-Commerce market, the implications for e-Commerce retailers are plenty.

So, why is wearable technology useful for e-Commerce platforms? Because wearable have the impressive ability to collect data beyond just what e-Commerce platforms do today. Some wearable technology can see what products you view, define your taste, and can instantly recommend personalized products. If you start to add in physical data such as vital statistics, measurements and pupil dilation rate, the level to which recommendations could be tailored is truly incredible.

16. Improve dialogue systems.

Amazon have started to apply AI to widely known issues with dialogue systems, such as speech recognition, natural language understanding and question answering.For example, by applying a class of machine learning algorithms known as 'deep learning', Amazon can effectively convert speech (spoken by customers) to text with accurate results.

Amazon are also tackling the problem of answering questions automatically using AI by leveraging content within website pages such as product descriptions and customer reviews. For example, a customer may ask "how many USB ports are there on this specific laptop?"More complex questions would include "does this camera work indoors?" or "which TV out of these two has better image quality?"AI is providing new opportunities for e-Commerce retailers to engage with customers.

17. Tackle fake reviews.

Any experienced online retailer will be able tell you of at least one painful story about receiving fake reviews for their brand.Consumers are flooded with an abundance of advertising every day, which can become overwhelming and this will often delay their decision making. This is where word of mouth has become invaluable.If a customer's friend has purchased your product and had a positive experience, then the customer will end up buying the product too.

In fact, according Dimensional Research's recent study, a staggering 90% of respondents who recalled reading online reviews claimed that positive online reviews influenced buying decisions.More importantly, 86% said that buying decisions were influenced by negative online reviews.

18. Combat counterfeit products.

As with fake reviews (#17 in the list above), attributes such as product, brand and category are also useful to spot counterfeit products.When browsing through large online marketplaces, it can be difficult for the everyday consumer to identify a counterfeit product from a third-party seller. When the consumer buys a product that looks legitimate but performs poorly, it can leave a sour taste and negatively impact the consumer's perception of the brand.

19. Localize the customer experience.

With the rapid growth of AI in recent years, we are starting to see more industry-focused engines appear. Wayblazer, an AI platform for the travel industry, is a great example of this.Wayblazer use AI to provide a solution to B2B companies who merchandise hotels, activities, cruises and tours, and to companies who are looking to generate new revenue through hotel bookings.

Future of AI in e-commerce

AI's development in retail has helped e-commerce businesses reduce operational costs, boost sales, and increase customer satisfaction. For instance, some retailers have already successfully implemented chatbots into their customer service strategy–and it's proving to be a successful investment.It has also made shopping more convenient for customers who can now shop at any time of the day or night. This blog post will explore how AI is expected to play a massive role in shaping how retailers will operate in 2021 and beyond.

How is AI bringing change to the e-commerce industry?

Artificial Intelligence (AI) is the next big thing in the e-commerce industry. It has been around for a while, but it has become easier to implement AI solutions in the e-commerce industry with recent developments in various technologies.The e-commerce industry proves its advantages through increased customer satisfaction, lower costs, and more efficient processes. Moreover, AI is expected to grow at a **33.2%** yearly rates between 2020 and 2027.By using AI technology, you can create an **AI-powered personalized search** experience for your customers to increase their loyalty towards your brand and help you grow your business more effectively.

How can AI benefit e-commerce?

In the past, most e-commerce websites were created with a focus on **e-commerce conversion improvement** and sales alone. The idea was that if a site was easy to use and gave customers exactly what they wanted, people would purchase items from it more often. But now, the technology is available to go above and beyond this. Artificial intelligence can create a website that learns about its customers as they browse it. This allows for interaction between brand and buyer as never before seen by consumers of retail goods online. Now e-commerce sites have become an extension of the customer experience, providing value in addition to creating custom experiences for your customers based on their individual needs. With AI, customers can get answers to their questions even before they ask them. They also don't have to wait on hold or chat with customer service representatives when they want answers; instead.

Benefits of AI in the e-commerce industry

The advent of Artificial Intelligence (AI) and Machine Learning (ML) has changed the face of online shopping for good by making it more **personalized search** and responsive than ever before. Aimed at improving customer experience, By 2027, **80%** of retail CEOs want their companies to use AI-powered intelligent automation. Here's a list of benefits that an intelligent e-commerce platform provides:

1. Personalized marketing

With Artificial intelligence, e-commerce businesses can create personalized marketing strategies based on the needs and wants of their customer. They can collect data from social media, shopping history, and browsing habits to understand better what customers need and want. The AI will use this information to make predictions about customer behaviour. It will also make **AI-based recommendations** about how much they're willing to pay for a product or service.

2. Improve customer retention

Whether it's a local shop or a multinational corporation, nearly every business relies on customer retention to keep its business running.This is especially true in the e-commerce industry, which has created enormous opportunities for growth and development around the globe.However, despite how important it is to retain customers, many businesses still struggle with this part of the process. And if they're not working already, they will be soon enough because some significant changes are coming that will impact companies in the online marketplace.
The rise of artificial intelligence and chatbots can change things dramatically for businesses that haven't perfected customer retention strategies yet.

3. Seamless automation

E-commerce companies are now using artificial intelligence to improve their business. Many of them are opting for AI automation, which is quickly replacing humans in many industries. AI vendors have created services that help e-commerce companies automate their operations to focus on growth and sales optimization. The main advantage of AI automation is the ability to scale up the business while keeping costs low.

4. Efficient sales process

Artificial intelligence is helping e-commerce companies to improve their sales. It's also used to find the right market for a product, recommend products that are likely to have high demand, and forecast how many copies of each product need to be produced. In addition, AI can understand customer behaviour by analyzing search history and browsing patterns.

This allows companies to provide better-targeted marketing strategies and offers as well as **AI-based recommendations**.The result is that customers can be directed towards items that best match their interests and needs based on who they are as people rather than what they buy.

AI use cases in e-commerce

There are several AI use cases in e-commerce, and you're undoubtedly familiar with many of them – you just might not realize that the technology they're based on is related to AI. Six of the most frequent are as follows:

1. E-Commerce product recommendations

The e-commerce industry is a massive one with an increasing number of transactions every day. Personalized **e-commerce product recommendations** are a big part of online shopping, so convenient and fun for customers today.
It saves time and effort in making decisions on what to buy or not buy. It also ensures that people won't miss out on great products because they didn't see them earlier on their search results page.

2. Price optimization

Customer demands and expectations are increasing. Retailers need to provide an **AI-based e-commerce personalization**. They also need to give their customers an exceptional experience so that they'll return to the store.
However, there is no way for retailers to meet these needs without using technology.
AI price optimization enables retailers to collect data from all their stores and social media platforms and understand what customers want and how much they're willing to pay for it.
This information helps companies increase **e-commerce conversion improvement** rates by implementing pricing strategies that appeal directly to consumers' interests.

3. Customer service

We have seen the rise and fall of chatbots; however, there are some compelling examples of how AI can enhance customer service in the e-commerce industry.
For example, Letgo uses NLP (Natural Language Processing) to detect a user's feedback about a product and then generates a response which factors in the user's review.
Many companies have started using AI in customer services to reduce costs and improve productivity in the past few years.

4. Customer segmentation

Marketers are increasingly looking to artificial intelligence (AI) to help them target the right customers. AI enables businesses to understand their customers better, which helps them build stronger relationships with those customers.
You can use AI to create personas that represent customer segments and identify patterns in consumer behaviour across multiple channels. By understanding their needs, marketers can tailor content and provide **AI-based e-commerce personalization** across all touchpoints.

When it comes to customer experience, nothing is more important than building a relationship based on trust – something that AI makes easier for e-commerce companies to achieve.

5. Smart logistics

AI systems are becoming more and more intelligent over time and enable them to make more accurate forecasts of supply chain and logistics processes. With the predictive capabilities,

AI shines in logistics and helps predict shipping times, demand levels, and shipping delays. Moreover, it uses real-time information from sensors, RFID tags, and other devices to manage inventory and assess needs.

6. Demand forecasting

By using AI, retailers can predict customer demands and sales for new products before they are even released on the market. This specific data helps to create better forecasts that will increase profits.AI can be implemented in the e-commerce industry by analyzing past trends, current market trends, demand for upcoming products, different online sources like shopping trends, news articles, and predicting future trends.It can also help an e-commerce company analyze inventory management and demand forecasting, leading to increased revenue.

The takeaway

The future of Artificial Intelligence in e-commerce is bright. You might not be surprised to learn that the retail industry is projected to experience a boom from AI. That being said, If you want the best possible shopping experience on your e-commerce site, check out the benefits of artificial intelligence and machine learning. This can help you better use your consumer and business data to create a workable plan for the future.

5 ways AI will evolve within marketing in 2023, according to marketers

AI has become one of the most impactful innovations of the digital age. A few decades ago, the sentiment was that AI belonged to robots in the far-flung future, but it hasn't taken long for AI to assert its position in the real world.

Today, AI has become a firm fixture in many of our lives. Most of us interact with AI multiple times a day. As consumers, it learns our preferences for advertisements, music, movies, etc. to provide us with a personalized online experience – think Netflix, Spotify, and social media. It enables us to implement facial recognition technology; navigate maps on apps like Google Maps and Uber; use smart assistants like Google Home, Siri and Alexa and chatbots. It can even drive us around safely.

AI has also revolutionized marketing. It has been integrated into every digital marketing channel, from social media and display ads to copywriting and image generation. It facilitates smarter marketing, enabling businesses to connect with consumers in the right way, with the right message, at the right time, on the right platform. And to put a number on it, the market for AI in marketing was estimated at $15.84 billion in 2021 and is projected to increase more than $107.5 billion by 2028.

Below are some of the different ways AI is being used within marketing.

- Predictive AI: AI can help marketers predict performance on things like email open rates.
- AI image generation: AI can generate images that marketers can use in campaigns.
- AI copywriting: AI uses machine learning and natural language processing (NLP) to generate copy that fits a particular tone, style, and format.
- Chatbots: AI-powered chat bots work using NLP technology to interpret knowledge and understand conversation structure to respond to customer queries, instead of relying on pre-programming.
- Data enrichment and cleanup: AI can help marketers clean up their contact lists and enrich data to remove broken records and data mismatches.
- Social media: AI and machine learning can be used in social media marketing to create high-performance campaigns, provide insights on buyer personas, suggest optimum publishing times, and track the performance of marketing campaigns.
- Automation: AI can automate repetitive manual tasks, saving marketers time and money.

AI, by its very nature, does not rest. It is constantly learning and getting smarter, and continuously offers marketers new ways to harness its intelligence. This means there are new trends emerging every year. We asked marketers across different industries to share their thoughts on how AI in marketing will evolve in 2023, and here are five trends they expect to see.

1. Smarter content generation

When AI was first adopted into marketing, its main purpose was to automate repetitive tasks. But considering what AI can do now, that stuff is child's play. Now, generative AI algorithms take existing data in the form of copy, images, videos, sounds, etc. and use it to create never-before-seen content.Ortto's AI image generator (coming soon) does just this. In the simplest terms, it works by looking at the text input by the user alongside reference images to compare likeness, and then generates an altered image.

Perhaps further ahead in its development is AI copywriting. In 2020, Open AI launched the Generative Pre-Trained Transformer (GPT-3), which is a model trained with over 175 million machine learning parameters, so it can create any kind of copy and perform multiple functions like translation, and even code websites.

Ryan Turner, founder of Ecommerce Intelligence, recognizes the increased adoption of AI-powered writing tools in marketing. "AI content creation is becoming more and more popular, with brands leveraging tools to build article outlines, suggest keywords for SEO, write social media posts, and in some cases even create full blog posts and articles without much human input," says Turner.

For Turner, the technology will only get more effective over time. "The more it gets used, the more feedback is available, and the more effective and refined the algorithms become. As this happens, brands will start to rely on it more and especially for time-consuming tasks such as content creation," says Turner.

One tool that is invaluable to marketers – or anyone who sends emails – is a tool that crafts conversion-driving subject lines, like Ortto's AI subject line writer tool. Not only does Ortto's tool accurately predict the open rates of emails, but it generates alternative suggestions so you can be confident your emails will compete in the inbox.

Future of AI Trends in the

Industry – Growth of AI in eCommerce

AI is bringing different evolutions to the eCommerce industry. One example is the ability of AI to include a voice search feature. That's where you can simply voice what you are searching for, and the AI understands your query and proceeds to find it for you.

As an online business owner, know the different trends that the e Commerce website community is using so that you can optimize your store as well. With AI, eCommerce merchants can automate repetitive manual tasks to enhance the purchase processes of any online store.

Here are a **few AI trends** that the eCommerce space follows to invite more customers to their websites.

- Ability to measure and record deep customer insights and their behaviors.
- Analyzing the purchasing habits of global consumers.
- Enhancing the payment options and accelerating the payment process in the store.
- AI-induced chatbots for guiding the customers through the website
- Voice search for the product search in your eCommerce stores.

Role of AI & ML (Machine Learning) in eCommerce

Artificial Intelligence and Machine Learning play a vital role in enhancing the customer service of a website. When someone says Artificial Intelligence, a lot of you might think about self-driving cars and talking robots. But in fact, AI is being used in numerous industries and is especially capable of helping you in your very own eCommerce industry.

1. AI Chatbots for Customer Engagement

When you are visiting an eCommerce website, you should be able to find your products easily without navigating the website for too long. An AI chatbot pops up on the website and answers customers' questions immediately.

Ecommerce has taken the world by a storm. No one would've expected the steep rise of eCommerce via digitalization. Then with further advancements came along the use of chatbots in eCommerce. An advanced iteration to the use of chatbots is conversational chatbots.

- An AI-induced chatbot simulates the conversation of a real-life human.
- The personalization potential of a chatbot will captivate online shoppers and provide a seamless shopping experience.
- AI chatbots also provide abandoned cart triggers and remind the customers of the products left in their carts.
- With AI chatbots, you can recommend products with upselling and cross-selling strategies to customers.
- Page targeting is one of the significant features of AI chatbots. An online business owner can use Artificial Intelligence induced chatbots to gain insights and engagement.
- Machine learning and AI with human-in-the-loop technology will enhance the eCommerce market's customer service.

AI chatbots captivate customers in the eCommerce space

The concept of commerce worked on the principle of attracting customers and creating demand in the market. This growth of commerce has mostly relied on sales by interacting with the customer and understanding their demand. Ever since conventional commerce moved towards digitalization, there hasn't been much of a conversational mode of commerce to drive sales.

2. Effective Automation

Consider the Zapier automation tool, featuring integration in email and Customer Relationship Management systems. The AI technology will maintain the data and automate the manual tasks of entering customer data into your systems.

- You can schedule emails in the customer relationship management systems with the AI chatbots.
- Your online store will become more functional by automating repetitive tasks with Artificial Intelligence technology.
- Automating low-level support in the eCommerce industry will help you escalate sales exponentially.

3. Generate Business Leads for B2B

For B2B businesses, you have to find new prospects, schedule appointments, and select potential leads. Artificial Intelligence technology will automate all these tasks for eCommerce site owners.

Finding potential leads for your business is a challenging task for every B2B business site. But, AI technology will resolve these eCommerce challenges efficiently and enhance the sales process. Your potential leads will easily schedule appointments with this advanced AI technology.

4. Mobile Commerce and AI technology

AI will improve the UX(User Experience) of eCommerce websites. Mobile commerce is one of the latest trends in the eCommerce industry. In simple words, mobile commerce is your eCommerce website visibility through mobile applications.

Your eCommerce site should be visually appealing to customers. The artificial intelligence technology will help eCommerce business owners for making decisions. eCommerce business owners use AI applications for selecting images and video content for websites to optimize the site. To make your online store rank in the Google search results pages, you should optimize your stores for both mobile and desktop. AI can improve the mobile shopping and usability of your eCommerce website.

5. E-commerce Logistics with AI Chatbots

When you are implementing AI chatbots on eCommerce websites, your customers will easily place and track their orders. We have looked into the exceptional role of AI-induced chatbots in guiding customers through eCommerce websites to introduce products. In the same way, customers will place orders and track them efficiently with AI chatbots.

- You will also get real-time information. The AI will read the incoming data and flag certain things as a priority or less so, giving you a report.
- The predictive analysis enhances the functionality and supply chain of an eCommerce business.
- AI chatbots also provide product descriptions directly through the chat windows.

6. Voice Assistants in eCommerce

Voice assistants are one of the best AI trends in eCommerce. A customer need not type a search query, because, with an AI voice assistant, simple voice command will help customers reach their desired products without any difficulty.

In a famous eCommerce store like Amazon, voice assistant plays an important role. Enabling voice assistants in the stores will accelerate product search and help customers place orders instantly without any delay. AI technology will understand users' questions and respond to them relevantly.

Final Thoughts

The digital world is expanding at an unprecedented rate. Every day, trends change, and new trends arise. But, they all aim at bettering the user experience and satisfaction. In this case, Artificial Intelligence technology serves the right purpose by facilitating the user journey in the eCommerce industry.

Now that you know how advanced technology like AI and Machine Learning is changing the world, you can incorporate them into your brand in your own ways. Understand your requirements, create an AI-powered online store, and explore the scope and benefit they offer to drive conversions.

Marketers' Use of Artificial Intelligence to Create Ads
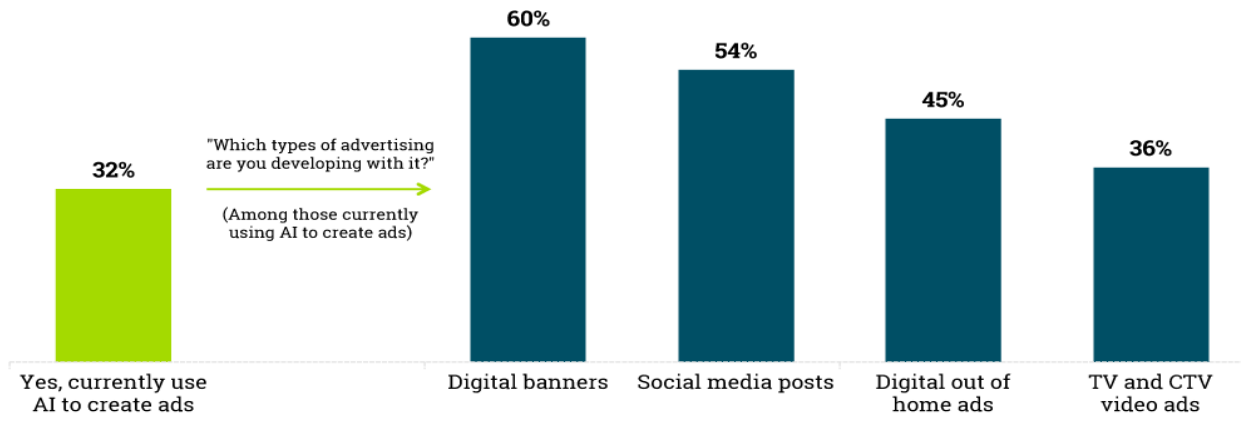
marketing charts

Published on MarketingCharts.com in March 2020 | Data Source: Advertiser Perceptions

Based on a survey of 303 marketers (40% share) and agency executives (60% share)
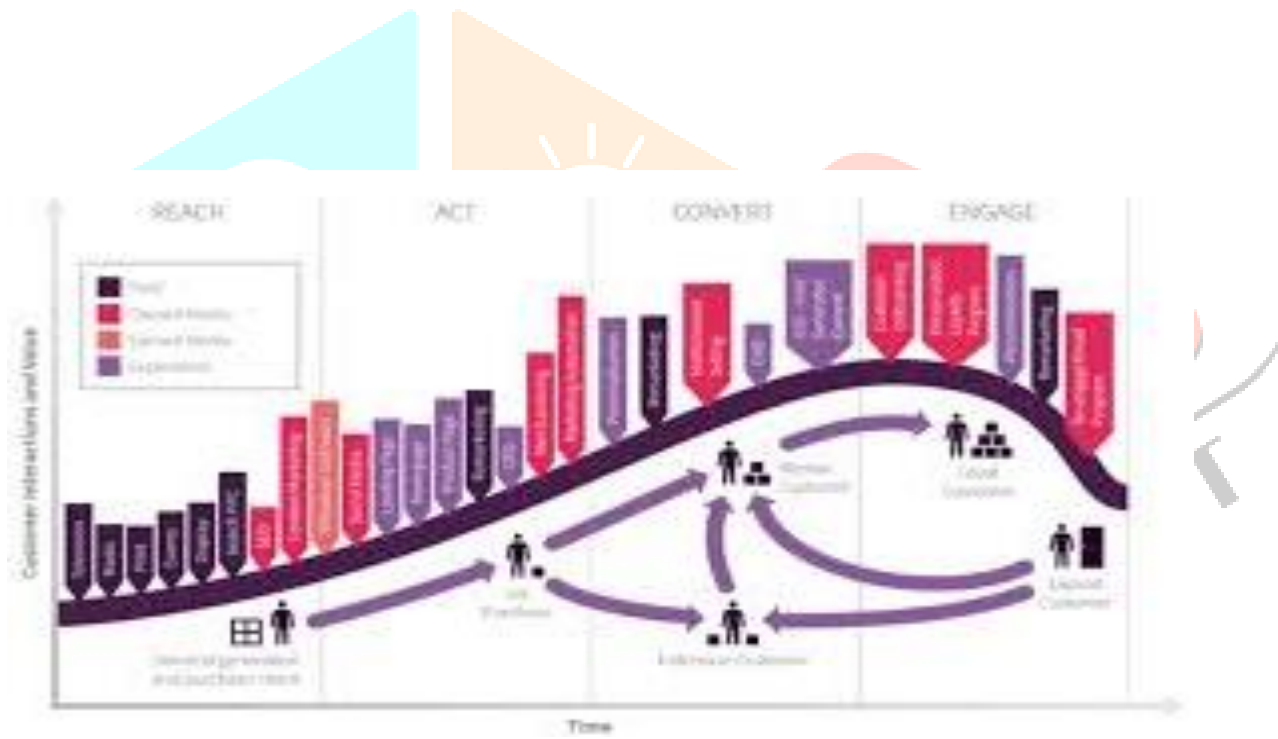
Factors to Consider Before Investing in Artificial Intelligence Shares in India

- Detailed Company Research

Recognize an AI company's business strategy and its prior success. In addition, please pay attention to the company's policies and procedures, the location of its headquarters and manufacturing facilities, and its long-term growth plans.

- Check the Price-to-Earnings Ratio for The Company

Do not let your emotions lead you to give a company the benefit of the doubt, even if you have strong feelings about investing in it. You must comprehend every detail of their financial operations. You should keep an eye on how much debt they have, their current profitability, and share price about their earnings per share.

- Determine the Level of Risk That is Present

How can you determine which stock of a particular company is riskier than the remainder of the market? Before making any investments, you can start by figuring out a company's beta or way of measuring uncertainty regarding the larger market. It is simple to determine a company's beta, and doing so can help you avoid future problems.

- Check if the Dividend on the Stock is High Enough to Make it Worthwhile

On financial news websites, investors can find out which stocks pay dividends. Avoid unrealistic expectations; a startup should not be expected to pay dividends.

- Keep Tabs on the Stock Chart of the Company

Utilize stock chart indicators that are as basic as possible to determine price changes. Think about the company's exposure to various economic variables and potential modifications to its market.

Top Listed Artificial Intelligence Companies in India: An Overview

1) Tata Elxsi Ltd.

Tata Elxsi Ltd. is a company that offers design and technology assistance. System integration and support and software development and services are the two divisions in which the company operates.

Its system integration & support segment is involved in the implementation and integration of complete systems and solutions for computing, broadcast, virtual reality, storage, and disaster recovery, as well as professional services for maintenance and support of infrastructure technology infrastructure in India and abroad.

Technology consulting, new product design, development, and testing services, consumer insights and strategy, visual design and branding, product and packaging design, user experience design, service experience design, transportation design, high-end content, and three-dimensional (3D) animation services are all provided by the company's software development and services segment.

2) Bosch Ltd.

Bosch Ltd. is an Indian-based provider of goods and services in energy and building technology, consumer goods, industrial technology, and mobility solutions.

The company's segments include automobiles, consumer goods, and other products. Diesel systems, gasoline systems, and automotive aftermarket goods and services make up the Automotive Products segment. In addition, some of its main offerings are power tools, building technology (security technology), and fuel injection equipment and components.

The company creates hardware, software, and service-based smart mobility solutions. Cooking and baking, washers and dryers, dishwashers, refrigerators, and freezers are all included in its product category for home appliances.

In addition, it provides goods and services for businesses and trades, such as drive and control technology, energy and building solutions, engineering and business solutions, professional power tools, security solutions, and software solutions.

3) Kellton Tech Solutions Ltd.

Kellton Tech Solutions Ltd. is an international company with its headquarters in India which provides services in enterprise resource planning, digital transformation, and other information technology fields.

Agile Software Development, Digital Commerce and Marketing, Digital Integration, Outsourced Product Development, Platform Modernization, Professional Services, Research and Development Labs, Technology Consulting, and Testing and Automation are some of the services offered by the company. In addition, it provides the Kellton4Media, KLGAME, Optima, and tHRive platforms. Kellton4Media covers all the various duties and responsibilities a media organization carries.

The company also allows editorial content control, story submission, and ad publishing. KLGAME is a location-based gamification, analytics, and messaging engine for the Internet of Things (loT). Optima is a digital oilfield analytical platform with loT capabilities that gathers and aggregates vast amounts of data from numerous sources and produces insights.

4) Happiest Minds Technologies Ltd.

Information technology (IT) consulting and services provider Happiest Minds Technologies Ltd. is based in India. Infrastructure Management & Security Services (IMSS), Digital Business Solutions (DBS), and Product Engineering Services are among the company's segments (PES).

IMSS offers managed security services and ongoing support for technology firms and mid-sized businesses. Additionally, it provides solutions for a wide range of digital technologies, including security, cloud computing, business process management (BPM), big data and advanced analytics, robotic process automation (RPA), and software-defined networking/network function virtualization (SN/NFV).Through digital software development

and application modernization, DBS concentrates on online modernization and transition for its clients. In addition, PES provides device engineering, platform engineering, and digital foundry.

5) Zensar Technologies Ltd.

Zensar Technologies Ltd. provides electronic alternatives and technology services. A variety of information technology (IT) solutions and services are offered by it. Digital and Application Services (DAS) and Digital Foundation Services are its two operating segments (DFS).

Custom application management services, which span a variety of technical and commercial verticals, are included in the DAS segment. These services include application development, maintenance, support, modernization, and testing.

6) Persistent Systems Ltd.

The Indian holding company called Persistent Systems Ltd. operates in the software and technology services industries. The company offers various services, including data and analytics, intelligent automation, cloud & infrastructure, client experiences (CX) transformation, and data and product engineering.

The company provides services to several sectors, including banking, financial services, insurance, healthcare, life sciences, industrial, software, high-tech, telecom, and media. Aepona Group Limited (AGL), Aepona Imported, Youperience GmbH (YGmbH), and Youperience Limited are some of the company's subsidiaries.

7) Saksoft Ltd.

Saksoft Ltd., the holding company, is based in India. Information technology (IT) services, allied business solutions, and strategic consulting services, including digital transformation solutions, are all businesses in which the Company and its subsidiaries are involved.

Businesses can access real-time information thanks to the company's custom-developed cloud-enabled enterprise applications and omnichannel solutions. The company's verticals include telecommunications, healthcare, retail e-commerce, logistics and transportation, fintech, and the public sector.

Enterprise applications, intelligent automation, augmented analytics, and enterprise cloud is some of the company's digital solutions. In addition, the company offers application services, managed services, testing and

quality assurance (QA), and core data services. The Company primarily conducts business in Europe, the United States, Asia Pacific, and Others.

8) Oracle Financial Services Software Ltd.

Oracle Financial Services Software Ltd. is a company that offers business processing services and information technology solutions to the financial services sector. Its segments include business processing outsourcing services, IT solutions and related services, product licenses, and associated business activities (Products) (BPO-Services). Products are the various banking software products covered in this segment.

Enhancement, implementation, and maintenance activities are included in its related activities. Its Services segment provides services spanning the lifecycle of applications used by financial service institutions. Technology, application, support, and consulting services are part of this segment's service offering.

9) Affle India Ltd.

The global technology company Affle (India) Ltd., based in India, provides a consumer intelligence platform that generates consumer recommendations and conversions through relevant mobile advertising for brands and business-to-consumer companies worldwide.

The Consumer platform and Enterprise platform are two of the company's segments. Appnext, Jampp, Mass, Faas, Mediasmart, Traction Enterprise, Rex, and Vizury are some of its platform options. Its consumer platform mainly offers services like converting new customers and retargeting current customers to move them closer to transactions.

Additionally, it provides complete solutions for businesses to improve their interaction with mobile users, including the creation of apps, the ability for offline companies with e-commerce ambitions to conduct business online, and the provision of enterprise-grade data analytics for both online and offline corporations.

10) Cyient Ltd.

Cyient Ltd. is an India-based technology and engineering solutions providing-company. The company specializes in network, operations, analytics, and geospatial solutions. In addition, transportation, communication, and utilities, a portfolio of industries, and digital services and solutions comprise its Services segment.

Offering electronic manufacturing solutions across various industries, business units, and sectors, including transportation, communication, and utilities, is the focus of its Design Led Manufacturing segment.

E-Commerce AI Companies

From marketing to sales, AI e-commerce providers are helping companies use big data to increase revenue through better demand planning and real-time optimizations and targeting.

Algorithmia

Is there a better name for an AI company than Algorithmia? Now a DataRobot company after an acquisition, Algorithmia's goal is to help data scientists find and use algorithms. It was initially an exchange for algorithms on a one-off, single-user basis. As it has grown, it has set its sights on the enterprise market.

The Trade Desk

A company designed to help digital advertisers run targeted digital advertising campaigns, The Trade Desk uses AI to optimize its customers' advertising campaigns for their appropriate audiences. Their AI, known as Koa, was built to analyze data across the internet to figure out what certain audiences are looking for and where ads should be placed to optimize reach and cost. The Trade Desk also allows you to launch your digital ads independently but uses its AI to offer performance suggestions while your campaign is live.

Swim.AI

Swim.ai's goal is to enable businesses to mine continuously streaming data into actionable insights. Leveraging machine learning, the company's "open core platform" augments the decision-making process by providing streaming data and contextualizing data sources. The SwimOS is open source.

Phrasee

Phrasee specializes in natural language generation for marketing copy. Its natural language generation system can generate millions of human-sounding variants of marketing at the touch of a button, allowing customers to tailor their copy to targeted customers. Retail, marketing, and AI are a combination of a rapid growth curve in the AI sector. During the COVID-19 pandemic, several retailers, such as Walgreens, used Phrasee to boost customer engagement related to vaccination.

Pymetrics

Based in New York City, Pymetrics leverages AI to help companies hire optimal candidates by examining more than what's traditionally included in a resume scan. Customers have their best employees fill out the Pymetrics assessment, which then creates a model for what future ideal candidates should bring to the table. In essence, the AI-based system is attempting to find more new staff that will fit in well with the existing top staff, using AI and behavioral science.

People.AI

People.ai's goal is to streamline the life of salespeople, assisting them in putting the reams of small details into relevant CRM systems, chiefly Salesforce. Think of all those pesky info bits from texting, your calendar, and endless Slack conversations — the company aims to help you with all of that. Plus, the system attempts to coach sales reps on the most effective ways to manage their time.

AlphaSense

AlphaSense is an AI-powered search engine designed for investment firms, banks, and Fortune "500" companies. The search engine focuses on searching for important information within earnings call transcripts, SEC filings, news, and research. The technology also uses artificial intelligence to expand keyword searches for relevant content.

Icertis

The remarkable truth about AI is that it keeps moving up the food chain in terms of the sophisticated tasks it can handle. Taking a big step up from simple automation, Icertis, with a decade under its belt, handles millions of business contracts through a method they call contract intelligence. Leveraging the cloud, the company's solution automates certain tasks and scans previous contract details. The company has gained some big clients , like Microsoft, and was named a Gartner leader.

Bizzabo

Bizzabo acquired X.ai. Geared to assist the busiest of people, X.ai's intelligent virtual assistant "Amy" helps users schedule meetings. The concept is simple: If you receive a meeting request but don't have time to work out logistics, you copy Amy in the email, and she handles it. Through machine learning and natural language processing, Amy schedules the best time and location for your meeting based on your preferences and schedule.

One Model

Human resources can be a bifurcated digital workspace, with different apps for each task that HR handles. OneModel is a talent analytics accelerator that helps HR departments handle employees, career pathing, recruiting, succession, exits, engagement, surveys, HR effectiveness, payroll, planning, and other HR features all in one place and in a uniform way. The company's core goal is to equip HR pros with machine learning smarts.

CopyAI

A fairly new startup in the AI copywriting space, Copy.ai uses basic inputs from users to generate marketing copy in seconds. It can create copy for a variety of different formats, including article outlines, meta descriptions, digital ads, social media content, and sales copy. Copy.ai has raised $2.9 million in funding from Craft Ventures and several other smaller investors. With its use of the GPT-3 language model to generate words, Copy.ai is a content-driven AI tool to keep an eye on.

AI

Focusing on enterprise AI, C3.ai offers a wide array of pre-built applications, along with a PaaS solution, to enable the development of enterprise-level AI, IoT applications, and analytics software. These AI-fueled applications serve a wide array of sectors and industry verticals, from supply chains to health care to anti-fraud efforts. The goal is to speed up and optimize the process of digital transformation.

Accubits

Accubits, a top-rated AI development company, focuses most of its energy on helping businesses enable AI for new efficiencies in their existing systems. Some of their AI solutions include intelligent chatbots in CRMs and predictive health diagnostics, both of which are designed to mesh with your existing software infrastructure. Accubits works across industries, like consumer technology, automotive, cybersecurity, health care, and fashion.

SS&C Blue Prism

SS&C Technologies completed an acquisition of Blue Prism, a leading RPA company. Blue Prism uses AI-fueled automation to do an array of repetitive, manual software tasks, which frees human staff up to focus on more meaningful work. The company's AI laboratory researches automated document reading and software vision. To further boost its AI functionality, Blue Prism bought Thoughtonomy, which offers AI-based cloud solutions.

DocuSign

A well-known technology company in the contract world, DocuSign uses e-signature technology to digitize the contracting process across a multitude of industries. Many users don't realize some of the AI features that DocuSign powers, such as AI-powered contract and risk analysis that is applied to a contract before you sign. This AI process lends itself to more efficient contract negotiations and/or renegotiations.

Tetra Tech

Tetra Tech uses AI to take notes on phone calls, so people working in call centers can focus on discussions with the callers. It uses AI to generate a detailed script of dialogues using its speech recognition technology. Given the large market for call centers, and the need to make them more effective at low cost, this is a big market for AI.

Nvidia

Nvidia's emergence as an AI leader was hardly overnight. It has been promoting its CUDA GPU programming language for nearly two decades. AI developers have come to see the value in the GPU's massively parallel processing design and embraced Nvidia GPUs for machine learning and artificial intelligence.

ViSenze

ViSenze's artificial intelligence visual recognition technology works by recommending visually similar items to users when shopping online. Its advanced visual search and image recognition solutions help businesses in e-commerce, m-commerce, and online advertising by recommending visually similar items to online shoppers.

ServiceNow

Element AI was acquired by ServiceNow. Originally based in Montreal, Element AI provides a platform for companies to build AI-powered solutions, particularly for companies that may not have the in-house talent to do it. Element AI says it supports app-building for predictive modeling, forecasting modeling, conversational AI and NLP, image recognition, and automatic tagging of attributes based on images.

Pointr

Pointr is an indoor positioning and navigation company with analytics and messaging features that help people navigate busy locations, like train stations and airport terminals. Its modules include indoor navigation, contextual notifications, location-based analytics, and location tracking. Its Bluetooth beacons use customer phones to help orient them around the building.

Directly

Considered one of the best AI-driven customer support tools on the market, Directly counts Microsoft as a customer. It helps its customers by intelligently routing their questions to chatbots to answer their questions personally or to customer support personnel. It prides itself on intelligent automation.Rulai

You have surely encountered the limited conversational style of a chatbot; a few stock phrases delivered in a monotone. Rulai is working to change this using the flexibility and adaptability of AI. The company claims its level 3 AI dialog manager can create "multi-round" conversations without requiring code from customers. Clearly a major growth area.

Tamr

In a world run by data, in many cases, someone, or some system, has to prep that data so it's usable. Data preparation is unglamorous but absolutely essential. Tamr combines machine learning and human tech staff to help customers optimize and integrate the highest value datasets into operations. Referred to as an enterprise-scale data unification company, Tamr enables cloud-native, on-premise, or hybrid scenarios — truly a good fit for today's data-driven, multicloud world.

Aurea Software

Aurea Software acquired Xant and returned the brand to its original and widely recognized name, InsideSales, that same year. InsideSales is a sales acceleration platform with a predictive and prescriptive self-learning engine, assisting in a sale and providing guidance to the salesperson to help close the deal. At its core is machine learning

How Artificial Intelligence is transforming the E-commerce Industry

Accounting for an impressive 35% of its overall revenues, product upselling and cross-selling on the Amazon E-commerce platform is among this retailer's major success stories. Which technology is driving this mode of conversion? Amazon's product recommendation technology that is primarily enabled by artificial intelligence or AI.

Apart from product recommendations, **artificial intelligence in Ecommerce** industry is being utilized by online retailers for providing chatbot services, analysing customer comments, and for providing personalized services to online shoppers. In fact, a 2019 Ubisend study found that 1 in every 5 consumers are willing to purchase goods or services from a chatbot, while 40% of the online shoppers are looking for great offers and shopping deals from chatbots.While the global E-commerce sales are projected to touch $4.8 billion by the year 2021, Gartner predicts that around 80% of all customer interactions will be managed by AI technologies (without any human agent) by the year 2020.

So, how is **AI in Ecommerce** changing the shopping experience in 2019? Through this article, let's see some of the important applications of **artificial intelligence in Ecommerce** along with some of the real-life industry examples.

How is Artificial Intelligence transforming shopping experience?

The use of **artificial intelligence in online shopping** is transforming the E-commerce industry by predicting shopping patterns based on the products that shoppers buy and when they buy them. For example, if online shoppers frequently buy a particular brand of rice every week, then the online retailer could send a personalized offer to these shoppers for this product, or even use a machine learning-enabled recommendation for a supplementary product that goes well with rice dishes.**Ecommerce AI tools** or AI-enabled digital assistants such as the Google Duplex tool is developing capabilities like creating grocery lists (from the shopper's natural voice) and even placing online shopping orders for them.

Major AI Applications in Ecommerce

While there are multiple **benefits of artificial intelligence in Ecommerce**, here are 4 major **AI applications for Ecommerce** that is dominating the industry today.

Chatbots and other virtual assistants

E-commerce retailers are increasingly turning towards chatbots or digital assistants to provide 24×7 support to their online shoppers. Built using AI technologies, chatbots are getting more intuitive and are enabling a better customer experience.Apart from providing good customer support, chatbots are enhancing the **impact of AI in Ecommerce** through capabilities such:

- Natural language processing (or NLP) that can interpret voice-based interactions with consumers.

- Addressing consumer needs through deeper insights.

- Self-learning capabilities that help them improve over time.

- Provide personalized or targeted offers to customers.

Intelligent Product Recommendations

Among the major applications of **artificial intelligence in Ecommerce**, personalized product recommendations for online shoppers are increasing conversion rates by 915% and average order values by 3%. With the use of big data, **AI in Ecommerce** is impacting customer choices thanks to its knowledge of previous purchases, searched products, and online browsing habits.

Image source: https://vibetrace.com/wp/wp-content/uploads/2013/11/product-recommendations-vibetrace.png

Product recommendations provide multiple benefits for Ecommerce retailers including:

- Higher number of returning customers

- Improved customer retention and sales

- A personalized shopping experience to online shoppers

- Enable a personalized business email campaign.
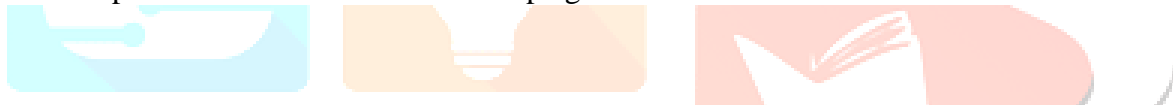
AI Personalization in Ecommerce

Rated among the most effective modes, personalization is at the core of **AI in Ecommerce marketing**. Based on specific data gathered from each online user, AI and **machine learning in Ecommerce** is deriving important user insights from the generated customer data.

For instance, the AI-enabled tool, Boomtrain is able to analyse customer data from multiple touch points (including mobile apps, email campaigns, and websites) to see how they are performing online interactions. These insights enable Ecommerce retailers to make suitable product recommendations and provide a consistent user experience across all devices.

Inventory Management

Efficient inventory management is all about maintaining the right level of inventory that can fulfil market demand without adding to idle stock.While the conventional form of inventory management was restricted to current stock levels, AI-enabled inventory management is enabling how to maintain stocks based on data related to:

- Sales trends over the previous years

- Projected or anticipated changes in product demands

- Potential supply-related issues that could impact inventory levels

Apart from inventory management, AI is enabling warehouse management with the emergence of automated robots that is being projected as the **future of artificial intelligence in Ecommerce**. Unlike human employees, AI

robots can be used to store or retrieve stocks 24×7 along with immediate dispatching of ordered items following an online order.

In addition to transforming the E-commerce industry in multiple ways, **AI in the B2B Ecommerce** sector is driving a host of innovative solutions. Let's look at some of the recent industry **case studies on artificial intelligence** that is impacting this sector.

AI-Enabled Smart Solutions for the Ecommerce industry

AI-based technologies are introducing online shoppers to a range of products that they didn't even know existed in the market. For instance, AI-based technology company, Sentient Technologies is enabling virtual digital shoppers that can recommend new products for online shoppers based on their personal buying patterns and data insights.

Buoyed by the success of the Amazon Alexa device, this E-commerce giant is introducing Alexa Voice Shopping that lets you review the best of daily deals on Amazon and place online shopping orders with just your voice. What's more? Amazon Alexa can also provide you with wardrobe tips including the best fashion combinations, and a comparison between outfits on what would look better on you.

AI in the Fashion Ecommerce industry is reducing the number of returned goods purchased through online sales. For instance, the fashion brand, Zara is deploying AI capabilities to suggest the right apparel size (based on the shopper's measurement) along with their style preferences (loose or tight clothing). This can help the fashion brand to reduce its product returns and improve repeat purchases.

Besides these innovations, AI-powered solutions are transforming the E-commerce industry in the following areas:

- AI-enabled Email Marketing that sends out marketing emails for products (or services) that are of interest to the recipient. Apart from reading more human than automated, these email marketing tools make an intelligent user analysis based on their response and are more aligned to individual customer needs.

- AI-enabled Supply Chain Automation that enable effective management of supply chains for E-commerce platforms. Other benefits include enabling business decisions related to vendors, delivery schedules, and market needs.

- AI-based data analytics tools for the E-commerce sector that provide a host of benefits such as business intelligence, customer profiles, and online sale analysis.

- Omnichannel AI solutions that are creating a consistent and seamless customer experience across online and brick-and-mortar retail stores. For instance, AI-based omnichannel solutions from Sephora are utilizing a combination of AI and machine learning, natural language processing, and computer vision to reduce the gap between in-store and online customer experiences.

AI in Food & Beverages Market Trends

Volume For Food Robotics, Global, in billion units, 2021-2027
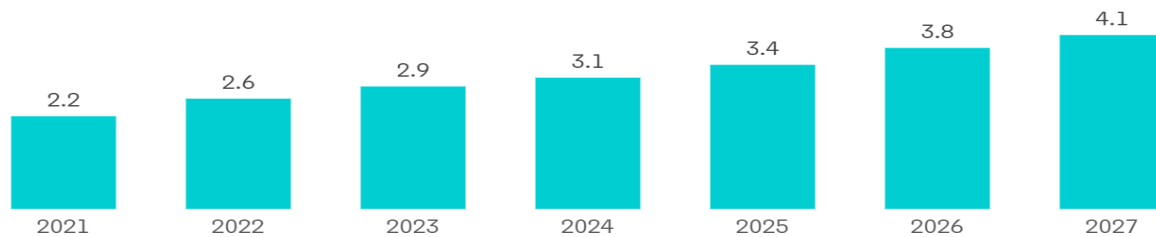
Source: Next Move Strategy Consulting

The implementation of AI in digital marketing has a number of notable impacts on the functionality of marketing campaigns, including:

- **Better Return on Investment (ROI)**: AI can aid in the making of more informed decisions regarding digital marketing campaigns, and the development of more effective content. Additionally, AI-assisted marketing strategies can help advertisers to reach the proper target audience.
- **Improved Marketing Results**: Through the utilization of data-driven research, AI can assist in the design of a more appropriate marketing strategy for big companies and small businesses.
- **Increased Productivity**: A variety of tedious tasks can be digitized and automated through the application of AI, resulting in a boost in productivity. By streamlining operations and reducing costs, AI can contribute to both increased revenue and reduced expenses for businesses.
- **Audience Analysis**: AI can analyze information to predict the buying patterns and actions of target consumers, improving user experience and providing them with exactly what they want.
- **Competitive Advantage**: The utilization of AI insights in business operations is becoming a priority for many companies, as it can lead to better decision-making, lower costs, decreased risk, faster time-to-market, and other advantages over competitors.

Impact of AI on Jobs and Employment Market

Many have expressed concern for their job status with the impending growth of AI and machine learning. Semrush revealed that:

- 38% of employees expect their job to be automated by 2023.
- 13% expect AI to eliminate positions entirely in their industry.

Despite the negative perceptions:

- AI technology is expected to create 12 million more jobs(link is external) than it is expected to replace
- Jobs are anticipated to be in high demand with 97 million specialists needed in the AI industry by 2025

One O'Reilly report(link is external) broke down usage by industry. They show the following:

- Technology: 17%
- Financial Services: 15%
- Healthcare: 9%
- Education: 8%
- Government/Public Sector: 6%
- Telecomm: 5%

- Manufacturing 4%
- Retail: 4%
- Media: 3%
- Energy: 3%
- Defense/Security: 3%
- Other: 22%

Where is AI Used Today?

1. United States
2. India
3. Canada
4. Germany
5. United Kingdom
6. Spain
7. Brazil
8. Mexico
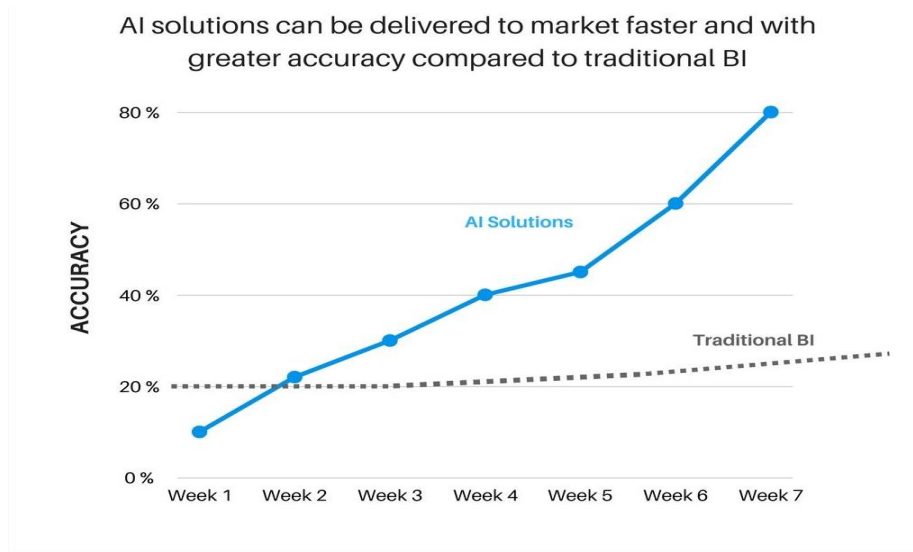9. Australia
10. Italy
11. France
12. Japan

AI and Marketers

- AI augmentation is predicted to have created $2T of business value by 2021. This value is equal to 6B hours of worker productivity globally.
- 59% of respondents named 'shortage of data science talent' as the primary barrier to extracting value from their big data technologies.
- 80% of business and tech leaders say AI already boosts productivity.
- Current AI technology can boost business productivity by up to 40%.
- By 2023, 40% of infrastructure and operations (I&O) teams will use AI-augmented automation in large enterprises, freeing up IT personnel's time for strategic work

Gaps in AI knowledge in the B2B industry

- 37% of executives say that managers don't understand cognitive technologies and how they work.
- Marketers say the top obstacle to integrating AI is applying it in their current role and workflow (33%)
- Only 13% of B2B marketers are very confident with their knowledge of AI, while 55% are somewhat confident, and 33% are not at all confident.
- 65% of companies cannot explain how their AI systems make decisions and predictions
- 78% of enterprises are poorly equipped to consider the ethical implications of using artificial intelligence
- Only 45% of businesses engage in ethical AI monitoring
- By 2023, all AI professionals will have to demonstrate a good grasp of responsible AI principles to secure a job

Benefits of AI in B2B

- 64% of B2B marketers consider AI valuable for their sales and marketing strategy.
- 83% of early AI adopters have already achieved substantial (30%) or moderate (53%) economic benefits
- 41% of marketing executives say improving their ability to innovate is a marketing priority for 2022.
- 63% of Digital Marketing Leaders Still Struggle with Personalisation, Yet Only 17% Use AI and Machine Learning Across the Function
- 84% of digital marketing leaders believe using AI/ML enhances the marketing function's ability to deliver real-time, personalised experiences to customers.

AI solutions can be delivered to market faster and with greater accuracy compared to traditional BI

Challenges of AI in B2B

- 76% of CEOs are most concerned with the potential for bias and lack of transparency when it comes to AI adoption
- 77% of CEOs say AI and automation will increase vulnerability and disruption to the way they do business
- Through 2022, 85% of AI projects will deliver erroneous outcomes due to bias in data, algorithms, or the teams responsible for managing them
- 40% of executives say that technologies and expertise are too expensive
- 93% of automation technologists feel unprepared or only partially prepared to tackle the challenges associated with smart machine technologies
- 63% of B2B marketers are not using AI in their tech stack.
- Although 75% of respondents piloting AI/ML worry about trusting the technology, only 53% of those broadly using AI in the marketing organisation worry about trust in AI/ML. This is

What are the top challenges with cognitive technology?
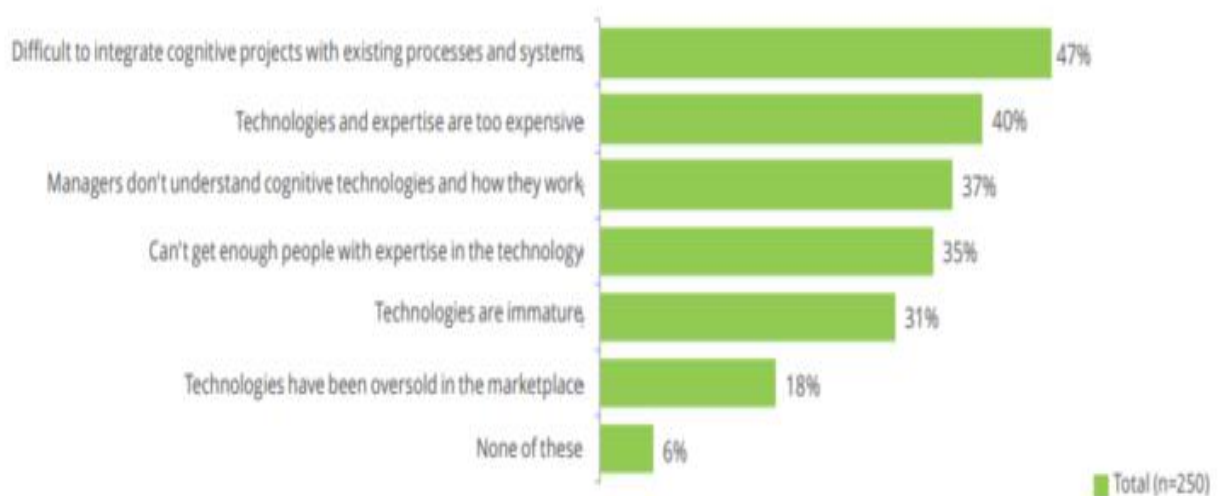
Source: Deloitte State of Cognitive Survey, August 2017

Traditional marketing powered by AI

- Worldwide data will grow 61% to 175 zettabytes by 2025. This will make AI and ML vital for productivity and efficiency.
- AI embedded in analytics and other marketing software will free up more than one-third of data analysts in marketing organisations by 2022.
- 71% of B2B marketers are interested in using AI for personalisation.
- 63% of B2B marketers are interested in using AI to identify trends.
- 59% of B2B marketers expect AI to help identify prospective customers.
- 53% of B2B marketers expect AI to improve marketing effectiveness in driving revenue.
- 87% of companies that have adopted AI were using it to improve email marketing.
- 61% of marketers were also planning to use artificial intelligence in sales forecasting.
- 61% of marketers say artificial intelligence is the most important aspect of their data strategy
- Brave Browser reports that over 3.8M monthly transacting users have used Basic Attention Tokens (BAT) in the platform, which allow users to compensate creators based on time spent consuming their content.
- The use of AI and ML in cybersecurity is expected to reach $38.2B by 2026

Conclusion

As highlighted in this article, artificial intelligence in Ecommerce is playing a leading role in driving innovative solutions and customer experiences. Some the leading use cases of artificial intelligence in Ecommerce is in the area of personalized shopping, product recommendations, and inventory management.As an online retailer, are you considering how to implement a working model of artificial intelligence for your business? Designed for AI in Ecommerce startups, Countants is an established data analytics provider that are enabling online retailers with solutions centred around product analytics and E-commerce KPIs.

Artificial Intelligence (AI) is now a crucial tool for several businesses, and India's technology market is expanding quickly. Artificial Intelligence has ingrained itself into every aspect of modern life, from online shopping to educational data. Additionally, many startups in India are growing and creating AI solutions for the financial, healthcare, and other sectors.The rising demand in the present and the future has been luring numerous businesses to adopt the trend over the past few years, increasing investment. Therefore, investing in digital technologies can yield enormous profits in the upcoming years.

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