

Chatbots: Just a Tool or a Tech Revolution?

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Robots have fascinated the human mind for a long time. Fueled partly by sci-fi movies and partly by raw imagination, some humans have come to think of robots as the ultimate tech creations that will eventually rule the earth. Rosie, the robot housekeeper in the Jetsons TV series, Wall-E the trash compactor robot, Optimus Prime in Transformers and of course the Robocop, are all different robotic visualizations created to do everything to make human lives easier or safer. It is not then surprising that the audiences view chatbots and digital assistants as magical creatures that reside on your smartphones and with your every command run around to fetch every little piece of information.



Some may assume these automated helpers are smart enough to pull off complex business tasks within seconds. However, everyone who has actually used a chatbot or a virtual assistant knows that this is far from true. Be it the lack of contextual awareness or the challenges with natural language AI, chatbots have deficiencies that need to be improved. Chatbots and virtual assistants can be a great technological asset only if deployed wisely. Using an automated conversational interface can be worth its weight in gold only if business owners use it in the right way and for the right purpose.

Chatbots and virtual assistants are often confused to be one and the same, however, they should not be used interchangeably. Chatbots are essentially robots that live within a single app or messaging interface and can be programmed easily with a selection of automated actions for specific business tasks. Virtual assistants like Siri, Cortana, or Alexa, on the other hand, are omnipresent AI helpers embedded in our smartphones and smart speakers. The specialized nature of chatbots can be particularly helpful for companies to revolutionize business processes and enhance revenues.

An advertisement for Pipeline Innovation Awards. It features a collage of images: a group of people at an event, a red carpet, and award trophies. The text includes "Pipeline INNOVATION AWARDS", "Be Recognized as a Top Industry Innovator", "EXCLUSIVE SPONSORSHIP PACKAGES AVAILABLE", and a "CLICK HERE" button. At the bottom, it says "Click this ad for more information".

The benefits

Customer engagement and customer service are arguably two of the best uses of chatbots. Thus, it is not surprising that an enviable number of bots within Facebook, Slack and Skype are focused around customer support. Chatbots can be the future of customer service and relieve upset customers from the painfully long and frustrating automated call system just to speak to a customer

rep. Chatbots can be the perfect tool for 24/7 customer service and can provide quick resolutions for customer complaints, troubleshooting or for tracking order status.

Yet another scenario where a chatbot fits right in is retail. Using a chatbot for product suggestion based on the buyer's searches as well as purchase history can help brands to increase sales, especially at times when buyers do not have anything specific in mind.

Another area where using chatbots makes great sense is accounting and finance. Chatbots can help automate mundane tasks like filing tax returns and expense reports and staying on top of ledger reports. By using a natural language interface, these accounting chatbots can remove the jargon and users can simply get answers by asking simple questions like "Who owes me money?" or "What is the last date to file a revised tax return?"

The concerns

While chatbots do have their advantages, they are not without their pitfalls. One of the most scathing criticisms about chatbots is that it adds more taps and friction than a traditional user interface (UI), thereby making it tedious for users. For example, while scheduling a meeting or a call across time zones, it often needs multiple emails or notifications to understand the time difference and prepare the schedule accordingly. With AI still in its infancy, there are limits to conversational AI technology, which is why chatbots can find it challenging to maintain the same conversational flow as humans.

Also, while chatbots can be a great technological addition for B2C businesses, it may not be very useful for more complex B2B interactions. Machine learning depends on high volumes of data and experiences to process. Since B2B businesses may have a lower volume of interactions but with higher complexity, it can lead to higher error rates.

The dangers

Microsoft's Tay chatbot fiasco shows the ugly side of automating conversation in a highly nuanced and layered domain like social media. Using a chatbot for social media management can turn ugly, especially while dealing with public facing incidents that need situational awareness, empathy and even some witty comment. In areas like these a human touch is still integral and irreplaceable. Imagine an irate customer posting a rant on a company's Facebook or Twitter page. Replying with an automated message that may miss the context and the gravity of the moment can cause serious and often far-reaching consequences for the company. In such situations a human response that shows deeper understanding of the customer issue can save the relationship and prevent the situation from turning into a full-blown PR disaster.

The way ahead

There is little reason to believe that chatbots will replace humans. However, it is definitely worth incorporating chatbot technology, considering the tremendous efficiency, speed and optimization that it offers. Juniper Research in UK [forecasts](#) that by 2022, chatbots will be responsible for cost saving of over \$8 billion per annum. It is also estimated that this figure will increase exponentially as the bugs are worked out and more robust chatbots are introduced for delivering enhanced customer service.

It has been observed that natural language processing (NLP) is not enough. Hence companies are heavily investing on the more advanced natural language understanding (NLU) system. NLU will allow machines to have a better understanding of user intent. Also, using a voice-interface for bots would be helpful to reduce friction and make them more user-friendly. However, the future of bots remains around their utility for various everyday tasks like ordering food from a restaurant, calling a taxi, booking a vacation or video chatting, all without the user leaving his preferred messaging app. The [success of WeChat](#) in China just underlines this fact. Also, the target industries and services

where chatbots will be central are those that need to perform a series of tasks repetitively. Bots can take over selected tasks from domains like marketing and sales, e-commerce, customer support and employee engagement.

The best way of using bots is to make them a tool for driving a brand's conversational and engagement strategy. Use caution. Chatbots and digital assistants must be constantly evolving and must be optimized based on how users interact and the overall user experience.