What are chatbots? Why are they such a big opportunity? How do they work? How can I build one? How can I meet other people interested in chatbots? Is a fake conversation better than just clicking buttons? Lets find out

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What Is A Chatbot?

A bot is software that is designed to automate the kinds of tasks you would usually do on your own, like making a dinner reservation, adding an appointment to your calendar or fetching and displaying information. The increasingly common form of bots, chatbots, simulate conversation. They often live inside messaging apps — or are at least designed to look that way — and it should feel like you’re chatting back and forth as you would with a human.

A chatbot is powered by rules and sometimes artificial intelligence, and the service could be any number of things, ranging from functional to fun, and it could live in any major chat product (Facebook Messenger, Slack, Telegram, Text Messages, etc.).

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Example:

If you wanted to buy shoes from ASOS online, you would go to their website, look around until you find the shoes you wanted, and then you would purchase them.

If ASOS makes a bot, which I’m sure they will, you would simply be able to message ASOS on Facebook. It would ask you what you’re looking for and you would simply… tell it.

Instead of browsing a website, you will have a conversation with the ASOS bot, mirroring the type of experience you would get when you go into the retail store.

Examples of Chat Bots

Buying shoes isn’t the only thing chatbots can be used for. Here are a couple of other examples:

* [Weather bot.](https://m.me/hiponcho) Get the weather whenever you ask.
* Grocery bot. Help me pick out and order groceries for the week.
* [News bot.](https://m.me/CNN) Ask it to tell you when ever something interesting happens.
* Life advice bot. I’ll tell it my problems and it helps me think of solutions.
* Personal finance bot. It helps me manage my money better.
* [Scheduling bot.](http://x.ai/) Get me a meeting with someone on the Messenger team at Facebook.
* [A bot that’s your friend](https://en.wikipedia.org/wiki/Xiaoice). In China there is a bot called Xiaoice, built by Microsoft, that over 20 million people talk to.

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Kik Messenger, which has 275 million registered users, recently announced a bot store. This includes one bot to send people Vine videos and another for getting makeup suggestions from Sephora. Twitter has had bots for years, like [this bot that tweets about earthquakes](https://twitter.com/earthquakeBot) as soon as they’re registered or a Domino’s bot that allows you to [order a pizza by tweeting a pizza emoji](http://www.usatoday.com/story/money/2015/05/12/dominos-pizza-tweet-a-pizza-twitter-tweet-to-order-fast-food-restaurants/27175005/).

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Google, the company with perhaps the greatest artificial intelligence capabilities and the biggest collection of data about you — both of which power effective bots.

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We already know a lot about this smart home hub announced by Google recently. First, it looks [suspiciously like an air freshener](http://cdn1.tnwcdn.com/wp-content/blogs.dir/1/files/2016/05/google-home-freshener-796x420.jpeg). Second, it's essentially a home assistant:  a centralized speaker than can do a bunch of voice-activated tasks while acting as the central brain to your blossoming smart home.

Google Now, its personal assistant system built within Android, serves many functions of the new wave of bots, but has had hiccups. The company is [reportedly working on a chatbot](http://recode.net/2015/11/03/facebooks-virtual-assistant-m-is-super-smart-its-also-probably-a-human/?_ga=2.175422560.313112098.1501765495-1786498745.1501384140) that will live in a mobile messaging product and is experimenting with ways to integrate Now deeper with search.

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**Where did the idea for bots come from?**

Bots have been around for [more than 50 years](http://news.harvard.edu/gazette/story/2012/09/alan-turing-at-100/). With the recent global boom in mobile messaging apps, such as WeChat, Facebook Messenger and Slack, they’re seen as increasingly relevant. They’ve likely been right under your nose. The first bots on Twitter [starting rolling out in 2006](https://blog.twitter.com/2006/meet-celly).

**Why are we hearing so much about them now?**

One key reason: The technology that powers bots, artificial intelligence software, is improving dramatically, thanks to heightened interest from key Silicon Valley powers like Facebook and Google. That AI enables computers to process language — and actually converse with humans — in ways they never could before. It came about from unprecedented advancements in software and hardware capabilities.

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Another reason is that Facebook, which has 900 million Messenger users, is expected to get into bots. Many see this as a big potential opportunity; where Facebook goes, the rest of the industry often follows.

Slack, which lends itself to bot-based services, has also grown dramatically to two million daily users, which [bot makers and investors see as a potentially lucrative market](http://venturebeat.com/2015/12/15/slack-hits-2m-daily-active-users-launches-third-party-app-directory-80m-developer-fund/).

*“People are now spending more time in messaging apps than in social media and that is a huge turning point. Messaging apps are the platforms of the future and bots will be how their users access all sorts of services.* The chat space is sort of the last unpolluted space on your phone. Right now, the way people use chat services, it’s really a good private space that you control.

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Part of the current obsession with bots is driven by a perceived fatigue with apps — so developers and companies are looking to bots as a new path to reach consumers.

But bots won’t kill apps anytime soon. It’s more likely they could replace parts of some apps, especially where there’s some sort of complex transaction involved or customer service. The downside of bots is that they’re often one-dimensional.

If you ask siri

**"Siri, why do you struggle with conversations?"**

A likely answer would be

**"I don't know what you mean - how about a web search for it?"**

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If you want the latest football scores, to add meetings to your calendar or launch an app, today's virtual assistants are relatively good at understanding your voice and doing what's asked.

But try to have the type of natural conversation seen in movies featuring artificial intelligence systems like Her - and you'll find your device about as smart as a waterproof teabag.

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The movie *Her* has captured the public imagination with its vision of a lightning-fast evolution of virtual assistants, and the emotional bonds we could form with them. Is this a likely future?

The film’s narrative shows the evolution of the operating system and her relationship with her user, transforming from a competent assistant, to a literary agent that arranges written letters, to an ideal girlfriend, and ultimately to an entity that loses interest in humans because they have become unsatisfying companions.

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So how do today’s virtual assistants or chatbots work?

There are two types of chatbots, one functions based on a set of rules, and the other more advanced version uses machine learning.

**A Chatbot that functions based on rules:**

* This bot is very very limited. It can only respond to very specific commands. If you say the wrong thing, it doesn’t know what you mean.
* This bot is only as smart as it is programmed to be.

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**A Chatbot that functions using machine learning:**

* This bot has an artificial brain AKA artificial intelligence. You don’t have to be ridiculously specific when you are talking to it. It understands language, not just commands.
* This bot continuously gets smarter as it learns from conversations it has with people.

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How To Build Chatbots

* Building a chatbot can sound daunting, but it’s totally doable. You’ll be creating an artificial intelligence powered chatting machine in no time (or, of course, you can always build a basic chat bot that doesn’t have a fancy AI brain and strictly follows rules).

There are three basic steps that go into excruciating detail

* Setting up your environment.
* Setting up a Facebook Application.
* Setting up your Facebook Messenger Bot.

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Wouldn’t it be awesome if you had a place to meet, learn, and share information with other people interested in chatbots?

Well there is a forum called “Chatbot News”, and it has quickly become the largest community related to Chatbots.

The members of the [Chatbots group](http://news.chatbotsmagazine.com/) are investors who manage well over $2 billion in capital, employees at Facebook, Instagram, Fitbit, Nike, and hackers from around the world.

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What’s next?

So, you made a bot. One of the hardest things about making a chatbot is trying to create an experience where the end user can’t tell the difference between the bot and a person. Many take it as a personal challenge to recreate the virtual entity from movie Her for their chatbot. But the fact of the matter is that Natural Language Processing (NLP) just isn’t there yet.

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