Chatbots have emerged as the next disruptive technology as messaging apps like Facebook Messenger, WeChat and WhatsApp overtake social networks in active users. Over the past few months, Facebook, Microsoft, Google, Amazon and others have developed new bot capabilities, and brands from CNN to American Express have joined the first wave.

The potential for engagement is high: Our recent SONAR™ survey found that 60% of US millennials shopping online would rather interact with a chatbot than a human, along with 53% of UK millennials. However, as Microsoft’s experimental chatbot Tay showed, machine learning technology still faces significant hurdles before it can be used by the public.

To learn more, we caught up with Brendan Bilko, head of product at Dexter, an open platform where developers can build and power conversation bots.

**Can you give us some background on what Dexter does?**

Dexter initially started as a data automation platform. We worked along these lines for some time, but realized that the bots that we were building worked great not only for data automation, but also for communicating with that data. So that’s kind of where we are today. We are a full-blown bot building platform.

**What would you say is the state of the chatbot industry now?**

It’s still really early days. One of the benchmarks of all of this really is F8, which is the Facebook conference where they announce the Messenger and API capabilities that they are launching, and that was in the middle of April. Messenger bots have existed for years, but in terms of being brought to the forefront and this wave that we’ve seen of late, a big chunk of that comes from the F8 conference.

**Have there been any other recent developments in tech or platforms that have helped launch this wave?**

Definitely, and we’re seeing things move along. The number one thing that everyone keeps pointing to is this Business Insider chart, which says the top four messaging services have more monthly active users than the top four social platforms.
Messaging App Growth

The upside of messaging is so insanely high, because it’s just prevalent on your mobile device. But people are still figuring it out. There are tons of betas in the space, both on the platform side for building them and on the side of the bots themselves.

In terms of the recent developments that are improving the platforms, Apple came out with the ability to develop on top of iMessage, so that’s new. Facebook Messenger just announced a ton of new improvements on their platform. Basically, as these platforms open up and they’re rolling out betas, they are seeing how developers are using it. With what the developers are learning and the initial engagement with users, they’re improving the products greatly.

We recently worked with a media platform to build their bot across SMS and Slack and Facebook Messenger. Now, one of those platforms has UI elements. So you could actually click a button that would trigger the bot, versus having to write something out. On Messenger, we saw over three times the amount of traffic engagement than on the other two platforms combined. Close to 78% of engagement was across Messenger.

The recent deployment of version 1.1 for Messenger is kind of indicative that these UI elements are having a lot of success. So, you’re seeing a lot more refined control over what you can show to users. There are a lot more UI elements and a lot less typing. Which seems counterintuitive to the movement as a whole, but you’re seeing a lot more engagement. I think a lot of that is bridging this gap from app engagements that we were used to for so many years to more conversational behaviors.

Your website emphasizes some of the characteristics that make chatbots useful for brands. Can you talk about some of these?

Things that make a great bot for brands are keeping it simple, keeping it prescriptive, but also keeping it fun. Chatting with brands is dwindling a bit across the social space. It’s not necessarily cool. But if you can create an extension that has a little bit more personality to it, it becomes much more effective.

Something that I’ve seen that was pretty interesting was Zootopia. They put out a bot which was an extension of the main character, Judy Hopps. You could chat with that rabbit; you could chat with that character. That’s what I think is pretty cool. Goosebumps did something similar. You can see a way
where these characterized brand extensions become a little more like friends, and a little less like bland brand engagements.

**Since bots are still a fairly new field, where do you see room for creativity?**

I definitely think there’s room for creativity, in a couple of ways. One is taking on that character bent. You can see choose-your-own adventure approaches happening, and we’ve seen games that do this. There’s an [iOS game](https://www.jwtintelligence.com) that runs through a conversational interface, and the whole premise of the game is that you’re communicating as a lifeline. You’re communicating with this astronaut that’s crashed somewhere—you’re mission control, and you’re steering him along this mission.

So I think that’s super creative. Something else that I haven’t seen yet, but I personally want to find: Back when I was running a creative shop, we did an engagement for Red Bull on Tumblr. And we created these content pieces that were playing with the dashboard in a really interesting way. If you’ve seen the Tumblr dashboard, you know it’s a stream of consecutive posts. We created these animated GIFs that stacked on top of each other and interacted with each other. I could see something really similar with GIFs enabled on Messenger. If you have a 10-card carousel, you could use animated GIFs to toss things back and forth between the different carousel card elements.

With this conversational UI going forward, a question that I’ve come into contact with a lot is: Is the designer’s role going to be completely dead the second this moves forward? You can see this blend of these card elements, the real story building and characterization that needs to happen. There’s a ton of room for cool design intricacies within these interactions. I haven’t seen anyone do it yet, but I don’t think we’re too far off.

![Image of conversation interface](https://www.jwtintelligence.com)

**How much of the chat element of these bots is scripted, and how much of it comes from algorithms?**

Machine learning and artificial intelligence and natural language processing: All of those things are great and have been on the verge of breakthrough for some time. It’s really close to being tech that you can rely upon. But in the short term, it’s not. If you have a machine learning algorithm that is taking in user input and then building a predictive model, and you see users berating it or sending it negative energy, eventually it’s going to predict something negative and spit that back out at you. And that’s not good, especially in a brand application.
So a lot of it is scripted right now, at least a lot of the ones I’ve come into contact with. And that’s not by accident. Brands want to have control over what their message is. Rather than being reliant on technology that’s not quite there, they’re creating a fallback plan. They’re saying, “Let’s be prepared for something that might not necessarily be in line with what this engagement is. And then we can look back and see what we are receiving, and prepare for it better going forward.”

In my opinion, that’s what’s great about this space. On a website and apps, you can do tons of click tracking and optimized user experience. But really what you’re doing is moving around UI elements. With these conversational interfaces, if you’re a flower shop and you’re not offering carnations, but you have 50 people typing in “carnations” and you’re not prepared for it, maybe you know down the line that you’d better start selling carnations.

**What are some of the advantages for brands of building out a chatbot, rather than developing their customer service?**

In terms of a customer service angle, I think bots can augment it using chatbots. In the same way that for years we’ve called our cable company and there are automated responses, you can have a bot that intercepts issues that you have known answers for. And the second that something is not what you can account for, you can pipe that over to a person.

The other thing that’s cool is it’s really lightweight. Especially with this early technology, because it is kind of basic and new. If you take out the artificial intelligence, you can put something really lightweight out there fast, learn from it, improve and iterate quickly.

Something that I think could be cool going forward are the conversations we’ve had with television networks. Take Breaking Bad, for example. AMC knew right off the bat that people had an affinity for the Saul Goodman character, and they were able to spin that off into another show. Well, what if you have a secondary character that people have an affinity for, and you want to test out whether it would be worth it to spin that off to some other product? What if you create some sort of companion messaging app that ran along with the show and allowed users to interact with the secondary storyline a little bit deeper, and get real feedback?

With users’ responses to these messaging apps, you can cluster around certain words and figure out if a group of people really likes something and if it’s worth pursuing it further and putting serious dollars into it, like you would have to for a spinoff. You can imagine serious applications of that—you could do that for anything from a cereal to a service.

**Are there any sectors that are early adopters where you see chatbots being used very effectively or gaining a lot of traction?**

We’re seeing it in medicine and in places where you make an appointment. So [ZocDoc](#) is really good about sending text message reminders, and I think through that there’s another service where you can change your appointment times. Hotel concierge has been doing it for some time, where you can find out when your room is ready or when your car is downstairs. Small things like that. You can see that being extended out to a whole host of concierge services.
And it’s a nice experience. I don’t have to call the front desk, I don’t have to worry about anything. Anything that removes friction, like being on hold for a period of time—I think in those cases people are quick to jump on this trend.

**How can chatbots can be used to change consumer behavior?**

For full-blown commerce, I think it’s still a little early. The first bots where you could purchase something through a conversational flow have received mixed reviews. But there has been some cool stuff, typically around smaller areas that are ripe for the picking. Shopify has extensions over messenger that will give customers at a particular Shopify storefront updates on shipping and receipts over Facebook Messenger. If you’ve logged into Facebook to access that storefront, now you can just get pinged in Messenger when your package has shipped.

Wingstop, the chicken wing place, has an app. They don’t do delivery, so you have to pick up your order. You can create an order over Facebook Messenger and put in what store you want to pick it up from. Then when you go to pick it up, that’s when you pay for it.

You can see something like that, going forward, driving a bit of a behavior change. What’s happened so far is just monitoring.

**In your opinion, what does the future hold for chatbots?**

I think it’s a permanent way for brands to add value. People are going to show up to a brand page in the same way that they show up to a brand Twitter page right now, expecting the brand to talk to them. Whether that’s for customer service or to glean more information, it’s definitely going to be important.

As machine learning technology improves I think that’s going to be a big way to more accurately service customers. Whether you’re a small flower shop or a big-box store, you’re going to want some prescriptive control over things, and predictive technology isn’t necessarily there yet. But going forward, as you’re able to make that more robust and handle anything a user throws in front of you, it’s definitely going to be something that everybody is going to want to have.

**Brendan Bilko, head of product, Dexter**

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