## Businesses Will Get Real with Al in 2023



Now that AI has gone from nice-to-have to musthave, what progress will be made for the business in the coming year?

As Forrester Research recently pointed out in their annual predictions report, Al adoption has evolved from an emerging, nice-to-have trend to experiment with into a legitimate, must-have priority for enterprises. It has yielded positive results in terms of effectiveness and efficiency, and for allowinged organizations to transform fundamental functions. User engagement with Al made great strides in 2022, as organizations continued to turn to chatbots, intelligent virtual assistants (IVA), and other Al-based solutions to provide customers with a self-service path to problem solving. However, these offerings fell short because most couldn't answer users' questions effectively. This is because most existing solutions cannot accurately

interpret questions posed in human language, nor can they effectively process the large amounts of unstructured, text-based documents that contain the answers.

In 2023, organizations will need to rethink how they practically deploy AI and make it more effective for business users, so expect to see the following trends.

Trend #1: The world reaches the era of "peak data scientist"

The shortfall of data scientists and machine learning engineers (MLEs) has always been a bottle-neck in companies trying to realize value from Al. Two things have happened as a result: more people have pursued data science degrees and accreditation, increasing the number of data scientists; and vendors have come up with novel ways to lessen the involvement of data scientists in the Al produc-

tion rollout.

The coincident interference of these two waves yields "peak data scientist," because with the advent of foundational models (large Al models that can generalize to new tasks, thus being the "foundation" for many Al applications), companies can build their own applications on top of these models rather than having to train their own models from scratch. Less custom model training requires fewer data scientists and MLEs at the same time more are graduating. In 2023, expect the market to react accordingly resulting in an oversaturation of data scientists.

Trend \*2: The Al industry will offer more tools that can be operated directly by business users

Companies have been hiring more data scientists and MLEs but net Al adoption in production has not increased at the same rate. Although considerable research and many trials are being conducted, companies are not benefiting from production Al solutions that can be scaled and managed easily as the business climate evolves.

In the coming year, AI will start to become more democratized so that less-technical people can directly leverage tools that abstract away all the machine learning complexity. Knowledge workers and "citizen data scientists" (people without formal training in advanced statistics or mathematics) will be extracting high-value insights from data using these self-service tools, allowing them to perform advanced analytics and solve specific business problems at the speed of business.

Trend #3: Chatbots will chat less and answer questions more

Chatbots were designed to enable natural language search on structured data (i.e., "what time is my appointment?" or "what is my account balance?"), but they struggle to search through unstructured, free-form data (where 80 percent of data resides). To try and meet customer needs, some chatbots have added pre-formed questions to try and steer users to the answer, much like a telephone menu tree ("Press 1 to...") directs customers to the information they want.

Humans don't want to spend more time interacting with machines as if they were talking to people for the sake of it; they want their questions answered quickly and accurately from the start without having to carry out lengthy conversations with bots or wade through a myriad of options. Although many chatbots can execute natural language search on structured data, they fall far short of expectations in finding the right answers hidden in unstructured data.

In 2023, chatbots will add natural language search capabilities on unstructured data, eliminating the lengthy back and forth with chatbots. Because natural language search understands human language and can process unstructured, text-based data (e.g., documents), individuals can phrase questions using their own words -- as if they were speaking to a person -- and receive relevant answers back instantly