



EDITORIAL

# COGNITIVE SERVICES: A.I. PACKAGED FOR DATA INSIGHT

Generating valuable insights from your organization's data can transform how you interact with your customers.

Read how cognitive services can utilize the data most valuable to your business.

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Artificial Intelligence (AI) is well on its way to disrupting how businesses operate — and how their customers interact (or don't) during the buying process.

This year, worldwide investments in AI are expected to be **three times higher** than last year, reaching close to \$500 billion. By 2020, businesses that use AI, Big Data and IoT technologies will “steal \$1.2 trillion per annum from their less-informed peers,” Forrester predicts.

Those positioned to take advantage will be astute at navigating the AI ecosystem, prioritizing investments and optimizing incoming information to focus on key customers, analysts say.

“AI capabilities will become table stakes for customer analytics solutions,” predicts Brandon Purcell in Forrester's 2017 report “The Top Emerging Technologies in Artificial Intelligence.” “AI promises to make (existing) tools even more useful by generating insights from unstructured data, automating the insights life cycle and employing a conversational interface.”

## Intelligence with scale

One rapidly evolving category of AI is “cognitive services” technology, which employs deep learning algorithms to deliver insights from a wide spectrum of speech, image, audio, text and/or search result data. When used in conjunction with related technologies common to IoT scenarios (such as machine learning, bots, advanced analytics, big data and powerful internet and enterprise search systems), cognitive services can simulate on a massive scale how the human brain senses, reasons and responds to stimuli.

The greatest benefits? By empowering organizations to analyze and derive actionable insights from massive amounts of structured, semi-structured and unstructured data, cognitive services enable business strategy to be formed around a number of statistically derived insights from common digital channels. And the appealing part – an organization does not have to invest in “rolling their own.” Virtually all of the services currently on the market package this intelligence into an application programming interface (API), ready for use by your development teams.

While the AI marketplace is continually evolving, some of today's most prominent products in the category include Microsoft's Cortana Analytics, IBM's Watson and Amazon Web Services tools such as Rekognition, Machine Learning and the Deep Learning AMI. More than **568,000 developers** in 60 countries have signed up for Microsoft's cognitive services to date. And IBM's Watson is already **24 times** “smarter” today than when it famously beat human opponents on the TV game show “Jeopardy” in 2011.

## How can all this apply to your business?

An investment in cognitive services is an investment in harvesting and eliciting the information that's most valuable to your business, by "learning" from your data so that it can deliver alerts and insights based on your specific preferences. "AI-enhanced analytics solutions will be your new best friends," advises Purcell.

Some functions the business world has found extremely valuable to date:

- **Device troubleshooting:** Communications service providers are effectively using the technology to solve customer issues without the need of live customer service personnel. An "intelligent" virtual agent can anticipate each user's requests and offer — in regular conversational form — setup and configuration recommendations for devices as well as information regarding billing/payments, order changes, connectivity and product or channel eligibility. Live personnel are reserved for more complex assistance as needed. In a global **IBM survey** of CSPs last year, 89 percent confirmed cognitive computing will play a critical role in the future of their businesses, 85 percent see it as disrupting the communications industry and 94 percent intend to invest.
- **Customer profiling:** Advanced algorithms can analyze your customers' spoken and written words and delineate the results for your strategic purposes. Today's systems can digest millions of Tweets, Facebook comments and phone calls originating from your customers, drill down into their personalities, gauge their satisfaction levels and predict everything from their responses to marketing tactics to their likelihood of buying a given product to their lifetime value.
- **Financial product recommendations:** This function empowers financial services firms to improve their investment recommendations to clients after analyzing their feedback, past decisions and other factors while assessing current market conditions. The suggestions can be targeted toward optimizing existing relationships, up-selling key customers and/or offering timely promotions. Such systems have long been optimized in the retail segment; one study found **59 percent** of U.S. shoppers have changed purchasing habits due to recommendations, and another determined online retailers can use them to boost conversions by up to **915 percent**.

## Start small to understand your needs

Ready to find out for yourself what cognitive services can do for your organization? If the technology is new to you, you may wish to start with small, tightly focused proof-of-concept projects to gauge how these technologies can best align with your business growth strategy. Seek out low-hanging fruit that would clearly be beneficial, such as analysis of your social media and website data, which would provide a better understanding of how those channels are performing.



## Magenic's team of specialists

To deliver optimal business value, cognitive services solutions require the integration of various capabilities — including requirements, cloud infrastructure, massive data storage, advanced and automated analytics, data visualization and often custom mobile and web development.

This is where Magenic shines. When you partner with us, you benefit from our expertise in a wide range of specialties — from conception to requirements specification to customer journey mapping to implementation. Our knowledge and experience in cognitive services programming, big data querying, application development and user experience design enables us to guide you through the complex and sometimes daunting process of creating a custom end-to-end solution that leverages one of your greatest assets — the enterprise data you already own.

Talk to us about how cognitive services can become a key part of your digital transformation.



## About Magenic

Magenic is a leader in business technology consulting. We understand the barriers to innovation companies are facing and apply the right technology to transform their business.

Visit us at [magenic.com](http://magenic.com) or call us at **877.277.1044** to learn more or to engage Magenic today.



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