

Cognitive on the Continent
Thomas H. Davenport and Giovanni Faccioli

There is little doubt that the United States is the most active market for cognitive technologies, but it is hardly the only one. There is also considerable interest in the technology in Europe, and a number of projects are underway in relatively sophisticated organizations. One of us, Giovanni, works primarily in Italy, and has discussed or consulted on the topic with many companies—specifically larger banks and insurance companies. Tom recently paid a visit to Italy and has also worked with companies in the U.K. and Switzerland on their cognitive projects.

Our non-systematic review suggests that there is a high level of interest in cognitive on both the North American and European continents. And a systematic 2017 [survey](#) (by Deloitte and [Efma](#), a European network of banks and insurance firms) suggested that as well; only 6% of the over 3000 respondents expected that “their world would not be disrupted by artificial intelligence.” Almost 90% said their companies were already doing something with AI.

However, there are some interesting contrasts in attitudes and approaches between the two regions. While there is generally more activity for cognitive in the U.S., the exception is for robotic process automation (RPA). This is not the brainiest cognitive technology, but it does perform digital tasks autonomously and is slowly gaining the ability to learn and improve. RPA is thriving in Europe, and we find that managers are more likely to be aware of it in Europe than in the U.S. Why is this one technology better known outside the U.S.? It may be because several key RPA vendors have a headquarters or a significant development presence in Europe, including Blue Prism (UK), UiPath (Romania) and WorkFusion (Ukraine). Several others originated in Israel.

European companies may also be more comfortable with RPA than some US firms because the former tend to be a bit more conservative in terms of investing in cognitive technology. RPA typically offers the fastest and easiest payoff in ROI from any cognitive investment, and it’s relatively easy to implement.

Consistent with that conservatism, some of the company managers and consultants we have spoken with in Europe suggest a bit of frustration with the business case for cognitive technology projects. In many cases they are struggling to start, since they are aware that AI will disrupt their companies, but they are still discussing with the business lines how to build up a set of business cases to show the ROI of the cognitive initiatives. The managers (and consultants who work with them) often say they want to show rapid economic benefits in terms of headcount reductions. They view that benefit (for the companies, not the workers) as the easiest and persuasive way to financially justify an investment in cognitive technology and boost the initiative (although only 9% in the survey expected “massive unemployment” from AI). This creates a problem when we tell them that most cognitive projects don’t—at least not yet—involve a lot of headcount reductions. This doesn’t mean that there

aren't other sources of financial benefit, but European managers may have to work a little harder to find the improvements in service quality or customer satisfaction. It is perhaps just as well that cognitive projects don't lead to job loss, because it's difficult to fire workers in Europe anyway.

We've also observed that European companies—even the more technologically aggressive ones—are still learning how AI can be implemented inside their ecosystems. This uncertainty is reinforced by the lack of an AI leader in many organizations (although a surprising 55% of survey respondents said their companies already had one) and the explicit need to search for and recruit AI professionals or consultants. European firms tend to have fewer data scientists and highly quantitative analysts than do sophisticated US firms. The consequence of this is that they seem less interested in do-it-yourself cognitive projects with open source technologies, and more interested in working with established vendors and consultants that not always are able to help them completely or properly. The consulting firms that have invested in AI and are pushing cognitive projects are educating their customers to understand that there is no one-size-fits-all solution, and that the most disruptive solutions are still coming from startups or relatively small companies focused on vertical business processes.

Another big difference between cognitive projects in the U.S. and Europe is language. If your organization's primary language isn't English, language can be a problem for text and voice-focused cognitive projects—particular those involving the automation of customer or employee interactions. Vendor systems for those applications (such as IBM's Watson and IpsiSoft's Amelia) can increasingly support non-English languages, but not all of them for all applications and APIs. Recall that in Europe there are 24 official languages.

The Italian language, for example, was not supported (at least until recently) by most cognitive vendors. So when a Deloitte Italy insurance client wanted to create a "cognitive help desk," the firm couldn't go with established vendors. Instead it turned to Loop AI Labs, a San Francisco-based startup (with an CEO who is Italian by birth). Loop AI is one of the few AI companies to employ unsupervised deep learning, which only needs a good chunk (a gigabyte or so) of text to identify patterns in and rank content. Perhaps most importantly, it can do this job independent of language.

The client also needed some aspects of robotic process automation—for example, to route a problem to the competency center that understands it best and can solve it fastest. Loop AI had these capabilities as well. The system worked well for the insurance company in an internal trial at an IT help desk, and now it is moving toward using a similar approach with external customers. Deloitte is now working on an Arabic language cognitive help desk for a different client. The focus on customer service applications of AI is the most common one in European banks, according to the survey. 65% of banking respondents saw it as the application domain with the highest impact.

These examples suggest that it's a good thing to have variations in the business and cultural contexts to which cognitive technology is applied. Geographic variation can be a means to stimulate innovation and to allow new technologies to rise to prominence. The key thing is for companies around the globe to learn from each other about what cognitive technologies work in what contexts, and what still isn't ready for prime time, in the cognitive technology ecosystem. In this context, vendors and consulting firms can help their customers to apply the lessons learned and to adopt the right solutions to redesign AI-enabled business processes.

Giovanni Faccioli leads the cognitive technology practice in Deloitte Italy.