Cognitive breakthrough
A closer look at five key findings
The 2017 Deloitte State of Cognitive Survey

www.deloitte.com/us/cognitivesurvey
Cognitive breakthrough

Want to know what the future of cognitive and AI technology in business looks like? There’s no reason to wonder: Some major early adopters are already showing the way. That’s why we recently surveyed 250 “cognitive-aware” leaders in “cognitive-active” companies. Their insights provide early-phase signals that offer a clear view into the not-so-distant future for those who follow—and in some cases run counter to current prevailing wisdom about these fast-moving developments.

Here’s a closer look at five key findings from the 2017 Deloitte State of Cognitive Survey.
Responder segments

If survey respondents were swimmers, they would fit into different categories based on skill and experience. Here, we will use three basic categories of swimmers to refer to different respondent segments.

- **Waders**: 24% of total respondents. Least experienced, with a heavy reliance on external vendors.

- **Slow Lane**: 34% of total respondents. Less experienced than Fast Lane respondents, with less money invested. This group is taking a more measured approach to cognitive and AI technologies.

- **Fast Lane**: 42% of total respondents. More experienced, expert users of cognitive and AI technologies.
Key findings

01 Transformation in 3, 2, 1...


03 It’s working.

04 From “Cool, we’ll try it” to “We’ve gotta have it.”

05 Cost savings? Just a side benefit.
Transformation in 3, 2, 1…

Most executives (76 percent) expect cognitive technologies to “substantially transform” their companies in three years or less. Nobody believes it will fail to drive substantive change, either for themselves or their industry.

Cognitive advantage:
Executives expect cognitive technologies to transform their companies

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Now</td>
<td>16%</td>
</tr>
<tr>
<td>In 1 year</td>
<td>20%</td>
</tr>
<tr>
<td>In 2–3 years</td>
<td>40%</td>
</tr>
<tr>
<td>In 4–5 years</td>
<td>18%</td>
</tr>
<tr>
<td>In 6–10 years</td>
<td>4%</td>
</tr>
<tr>
<td>Beyond 10 years</td>
<td>2%</td>
</tr>
<tr>
<td>Never</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Deloitte State of Cognitive Survey, August 2017, n=250

Transformational change—or incremental?
When it comes to AI, the Fast Lane votes for transformational change.

When asked to describe their feelings on AI/cognitive technologies today, here are the percentages of respondents who chose “It’s important to strive for large-scale, transformational change with cognitive technologies”:

- 27% Waders
- 41% Slow Lane
- 62% Fast Lane

Source: Deloitte State of Cognitive Survey, August 2017, n=250

Contrary to several doom-and-gloom reports on this topic recently released, respondents to our survey don't see job loss as a key outcome of their cognitive efforts. Within the next three years, 69 percent of enterprises anticipate minimal to no job loss and even some job gains. Looking further into the future, the picture is generally positive within 10 years. Big picture? Some jobs are likely to go away, as they do in the wake of any major technological advances. But as the nature of work changes, the key is to evolve human labor alongside digital labor to improve overall productivity. And that is likely to generate more jobs.

AI predicted to cause both gains and losses

<table>
<thead>
<tr>
<th>3 years from now</th>
<th>5 years from now</th>
<th>10 years from now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers are likely to be displaced in substantial numbers by AI/cognitive technology-driven automation</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>Workers and AI/cognitive technologies are likely to augment each other to produce new ways of working</td>
<td>51%</td>
<td>36%</td>
</tr>
<tr>
<td>AI/cognitive technologies are not likely to have much impact on the workforce over this timeframe</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>We are likely to see many new jobs from AI/cognitive technology</td>
<td>18%</td>
<td>23%</td>
</tr>
<tr>
<td>Don't know at this point</td>
<td>3%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Deloitte State of Cognitive Survey, August 2017, n=250

Job loss outlook hinges on sophistication

Fast Lane leaders see AI adding more jobs than eliminating them. Forty-four percent say the net impact will be the addition of AI-related jobs. Waders, meanwhile, are currently more focused on automation.

When asked what impact AI/cognitive technologies will have on job roles and changes in the next three years, these respondents said “substantial” or “moderate”:
Eighty-three percent of respondents told us their companies have already achieved either moderate or substantial benefits from their work with these technologies. Something is working—and it’s changing perceptions. While there’s plenty of hype from vendors and the media when it comes to cognitive technologies, only 9 percent of respondents believe the technology is overhyped. The most aggressive segment of respondents—those who had implemented more projects, invested more, and employed more sophisticated technologies—was the most positive about their outcomes.

The economic benefits of AI increase with experience

<table>
<thead>
<tr>
<th>Deployments</th>
<th>Negative impact</th>
<th>No benefit thus far</th>
<th>Moderate benefit</th>
<th>Substantial benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 (n=86)</td>
<td>26%</td>
<td>52%</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>3-5 (n=77)</td>
<td>12%</td>
<td>60%</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>6-10 (n=43)</td>
<td>9%</td>
<td>56%</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>11 plus (n=37)</td>
<td>5%</td>
<td>43%</td>
<td>49%</td>
<td></td>
</tr>
</tbody>
</table>

More experience, more enthusiasm
Nearly half of Fast Lane respondents say their companies have gained “substantial” benefits from AI. Meanwhile, a quarter of Slow Laners and 12 percent of Waders say the same. (Still, 64 percent of Slow Laners report “moderate” benefits.)

When asked how much internal economic impact from AI/cognitive technology projects their companies have seen so far, these respondents said “substantial”:

Source: Deloitte State of Cognitive Survey, August 2017, n=250
From “Cool, we’ll try it” to “We’ve gotta have it.”

Cognitive has fast become a business imperative. Nearly all survey respondents (92 percent) believe that cognitive technology is an important aspect of their internal business processes and 87 percent reported it will play a significant role in improving their products and services. Overall, three in four (76 percent) believe that AI and cognitive technology will substantially transform their organizations. Looking ahead, even more (89 percent) see it playing a larger role in shaping company strategy.

92 percent of respondents believe that cognitive technology is an important aspect of their internal business processes.
Cost savings?
Just a side benefit.

Think companies are adopting cognitive capabilities in order to cut costs? Think again. The most common benefit cited by survey respondents was to “enhance the features, functions, and/or performance of our products and services.” Fifty-one percent ranked it either first, second, or third. In short, companies are seeking to increase the value of their products or services by making them “smarter.” Cost savings appear to be merely a positive side benefit—“reduce headcount through automation” appears last in the ranking of primary benefits of cognitive technologies.

### AI: Primary benefits to companies

- **Enhance the features, functions, and/or performance of our products**: 19 15 17 (51%)
- **Make better decisions**: 14 10 11 (35%)
- **Create new products**: 12 12 8 (32%)
- **Optimize internal business operations**: 12 14 10 (36%)
- **Free up workers to be more creative by automating tasks**: 10 10 76 (36%)
- **Pursue new markets**: 8 9 8 (25%)
- **Capture and apply scarce knowledge where needed**: 8 9 8 (25%)
- **Optimize external processes like marketing and sales**: 7 11 12 (30%)
- **Reduce headcount through automation**: 7 8 8 (22%)
- **Don't know**: 2 2

**Source:** Deloitte State of Cognitive Survey, August 2017, n=250

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Beyond cost savings: New products, new markets, and more

The more advanced the user, the more sophisticated the application of cognitive and AI technologies. For example, 26 percent of Fast Laners report using AI to help them create new products or create new markets. Only 12 percent of Waders share this goal.

When asked about the primary benefit of AI/cognitive technology, here’s how many respondents said “create new products”:

- **Waders**: 17%
- **Slow Lane**: 36%
- **Fast Lane**: 38%
At Deloitte, we help clients achieve the cognitive advantage by reimagining how humans and machines work together, through everything from:

- Performing tasks with automation
- Making smarter, faster decisions driven by real insight
- Interacting and taking action through better engagement

The result? Smarter insights and stronger outcomes.
To find out more, please visit www.deloitte.com/us/cognitivesurvey.

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