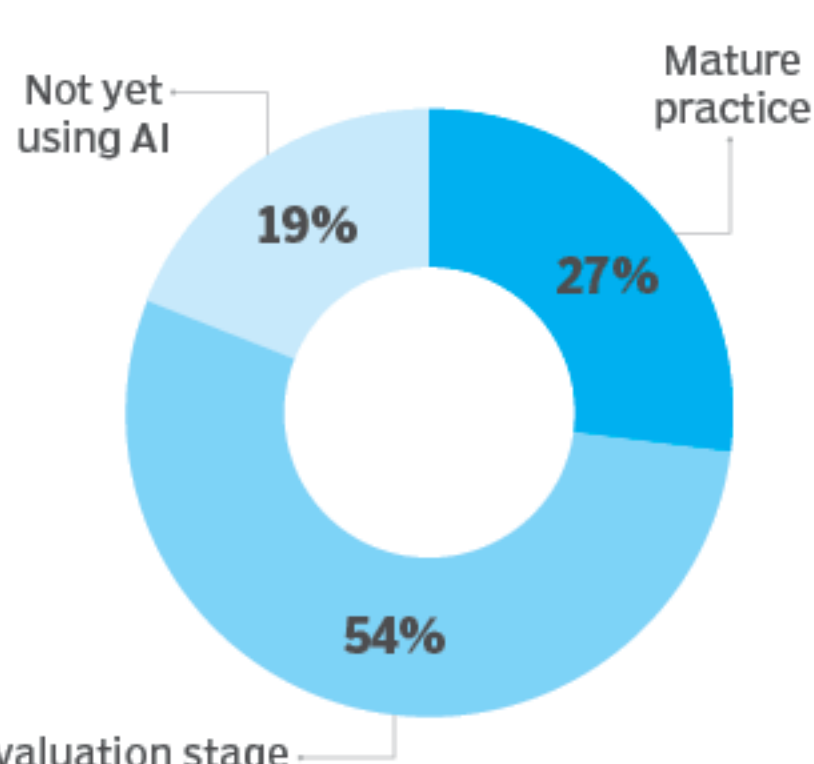


# The state of AI in the enterprise

Ben Lorica, chief data scientist at O'Reilly Media, and his team set off to answer some elusive questions: What really is the state of AI in the enterprise? Who is adopting the technology, and how? Explore this TechTarget infographic to break down the complex survey, including charts, graphics and quotes from an interview with Lorica.

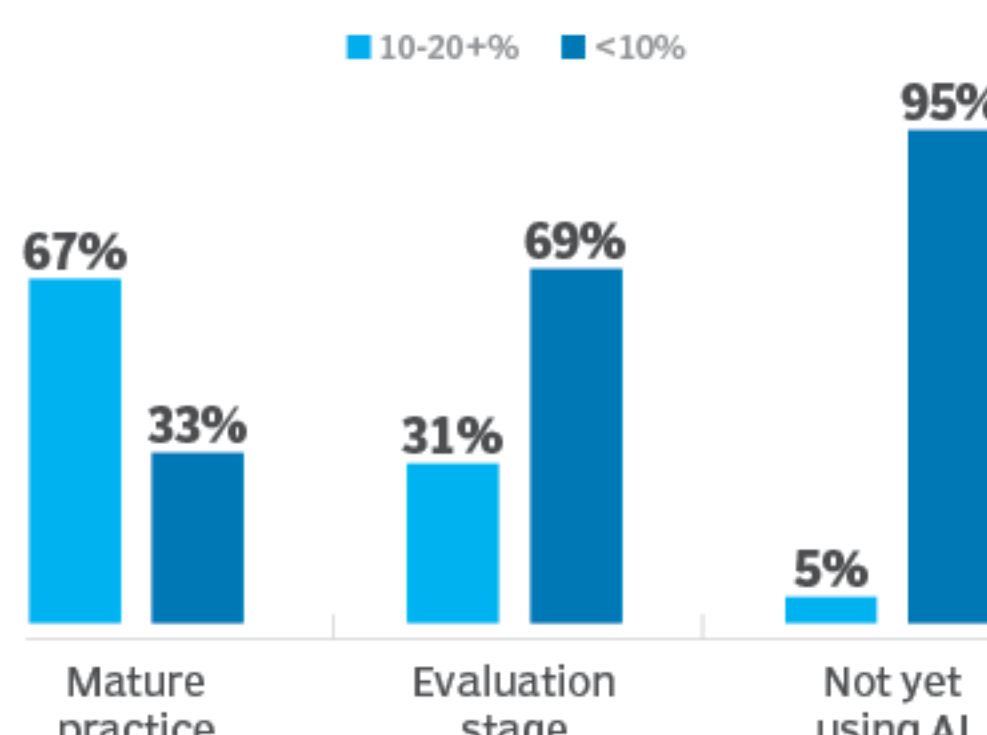
## How many people are actually using AI?

What is the stage of AI adoption in your organization?



"We're still in a highly empirical era for machine learning and AI, so people need to be able to experiment because there's still not a lot of understanding for what works, when, etc."—LORICA

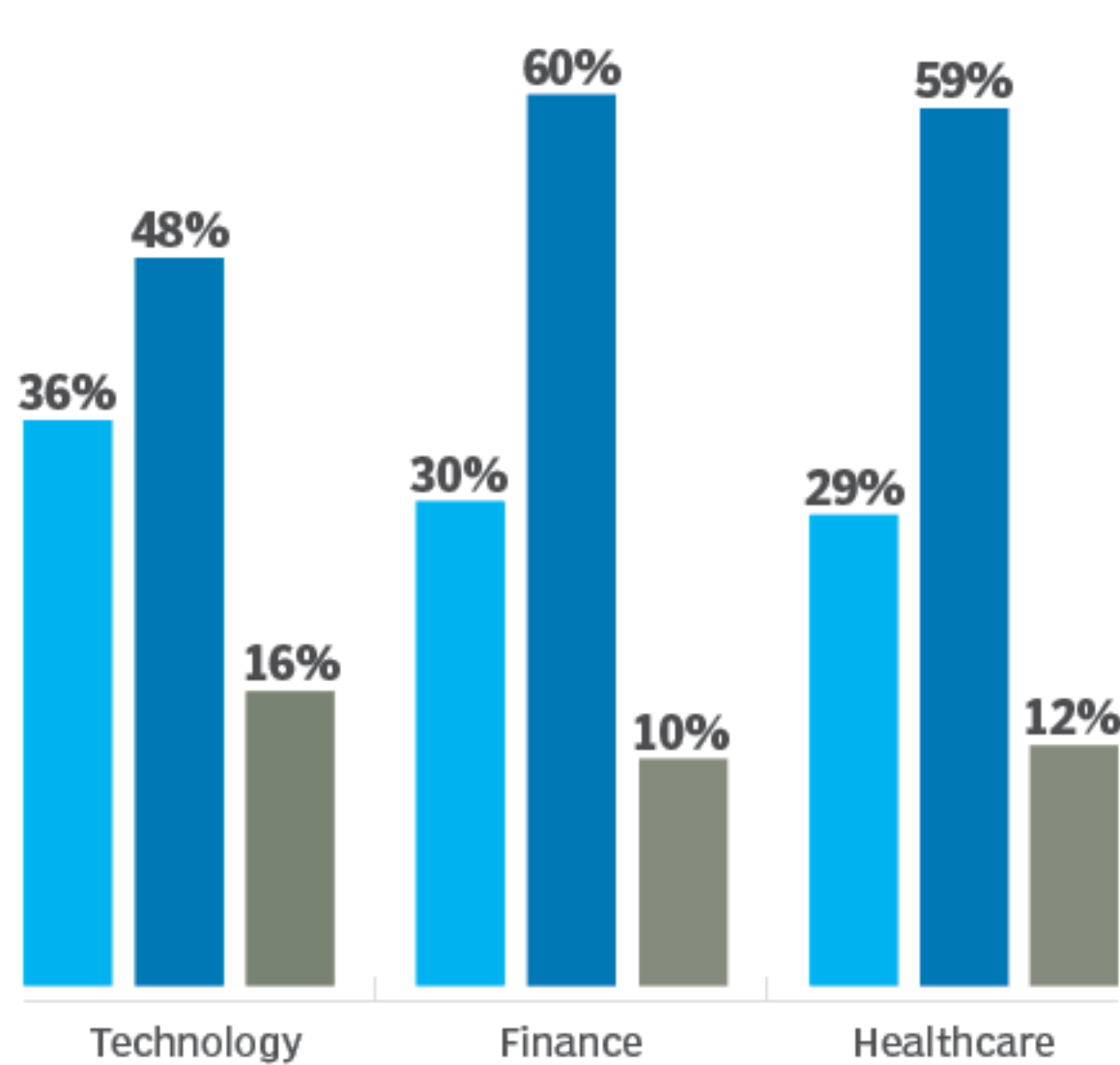
During the next 12 months, how much of your IT budget will be spent on AI projects?



Those who have AI are spending. Those who are not are avoiding. Companies who already have implemented AI plan to heavily invest, while those who have not yet invested or evaluated are less likely to allocate their budget for AI.

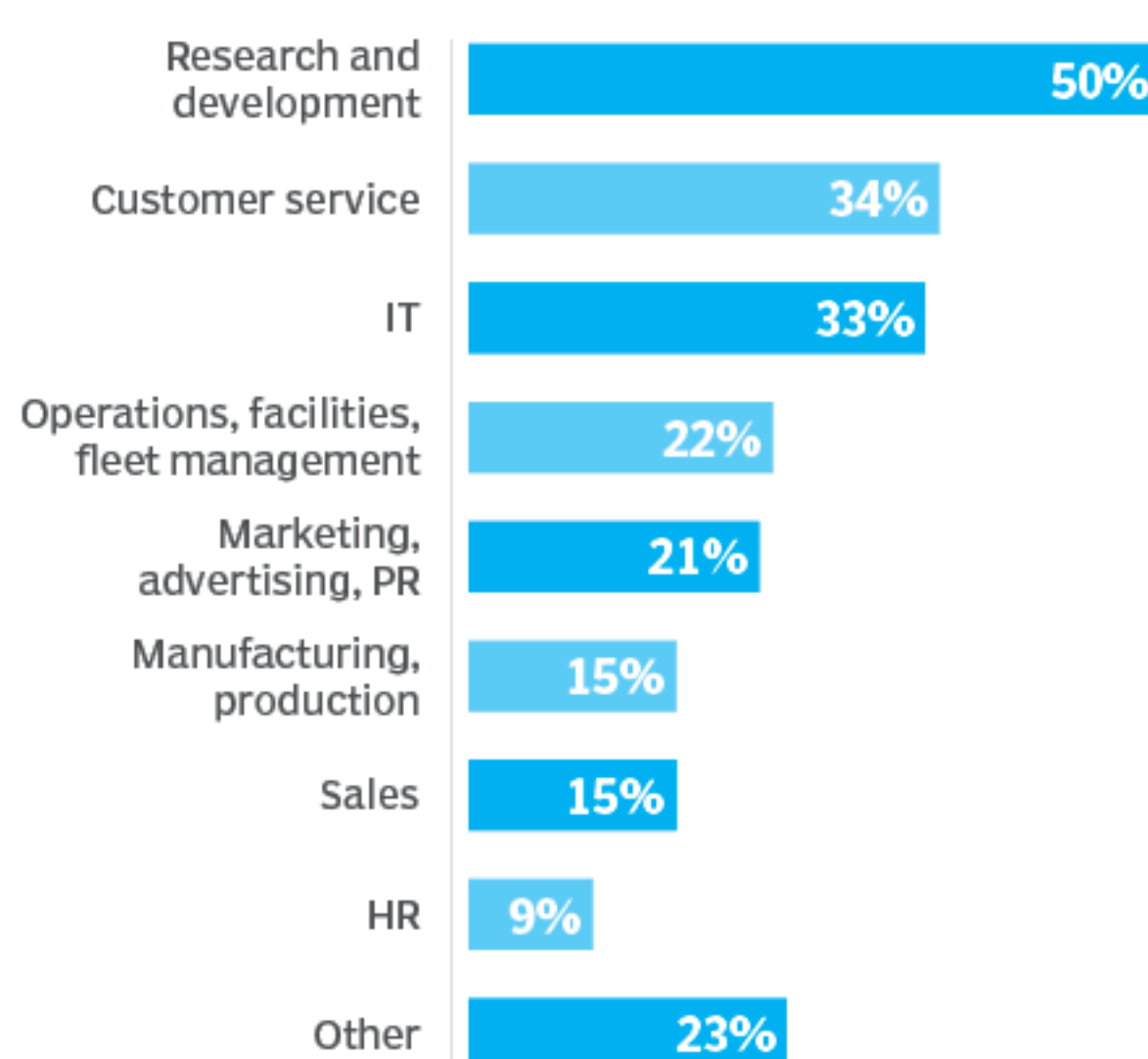
What is the stage of AI adoption by sector?

■ MATURE ■ EVALUATION ■ NOT YET USING



The technology sector leads in maturation and day-to-day use of AI, with healthcare and finance more centrally focused on the evaluation and proof-of-concept stage.

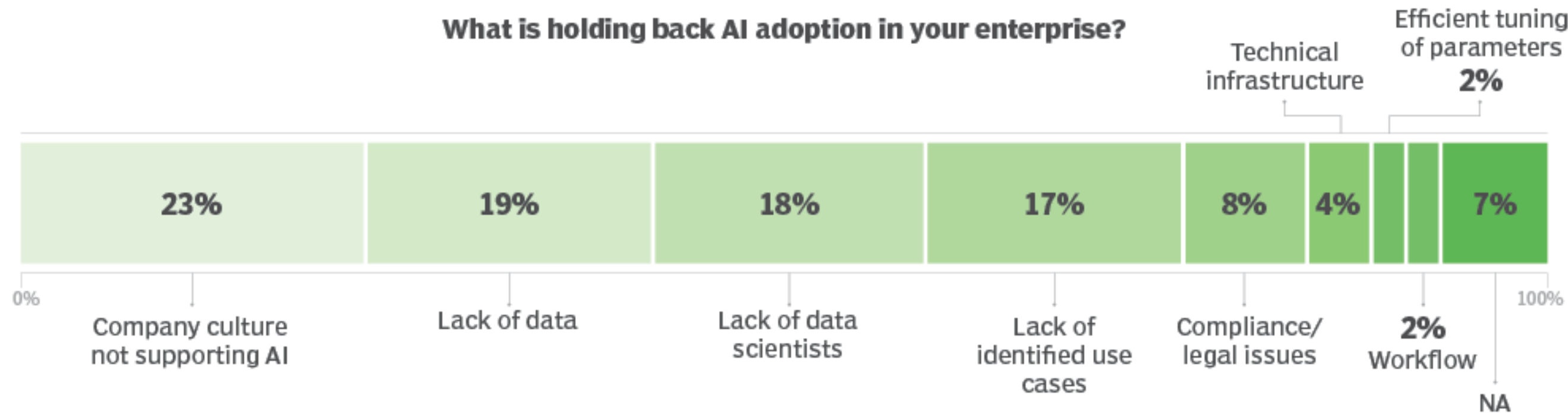
Which functional parts of the company are using AI?\*



The people who are successful in getting started are the ones who build upon existing analytic success stories. You might have data you have already collected for another purpose, and you start layering [machine learning] or AI on top of it."—LORICA

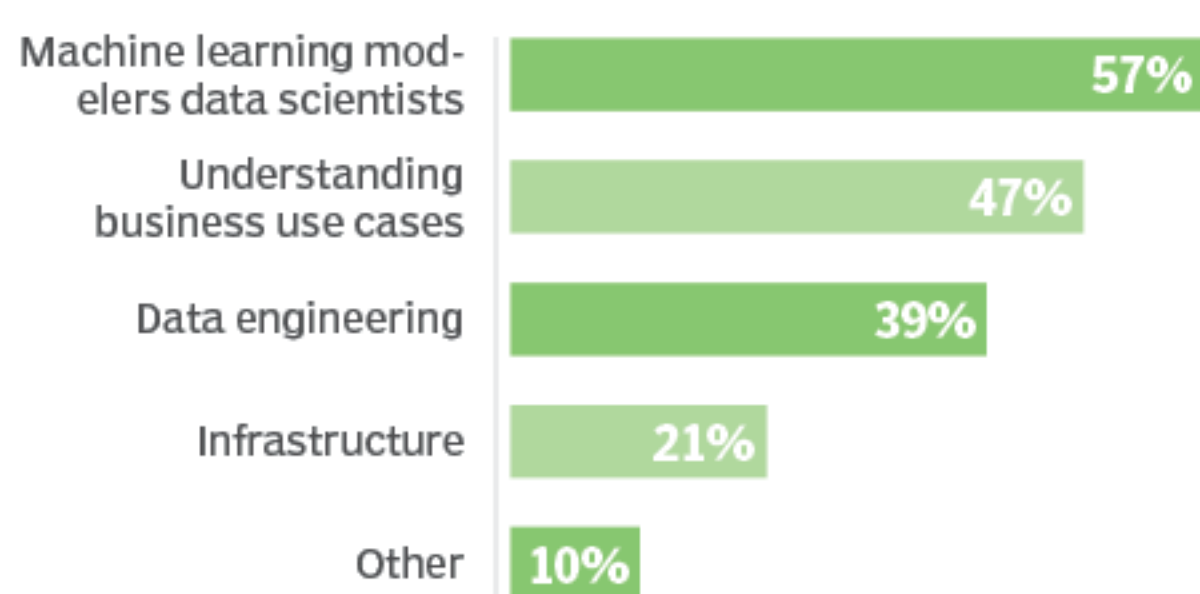
## Bottlenecks for AI implementation

What is holding back AI adoption in your enterprise?



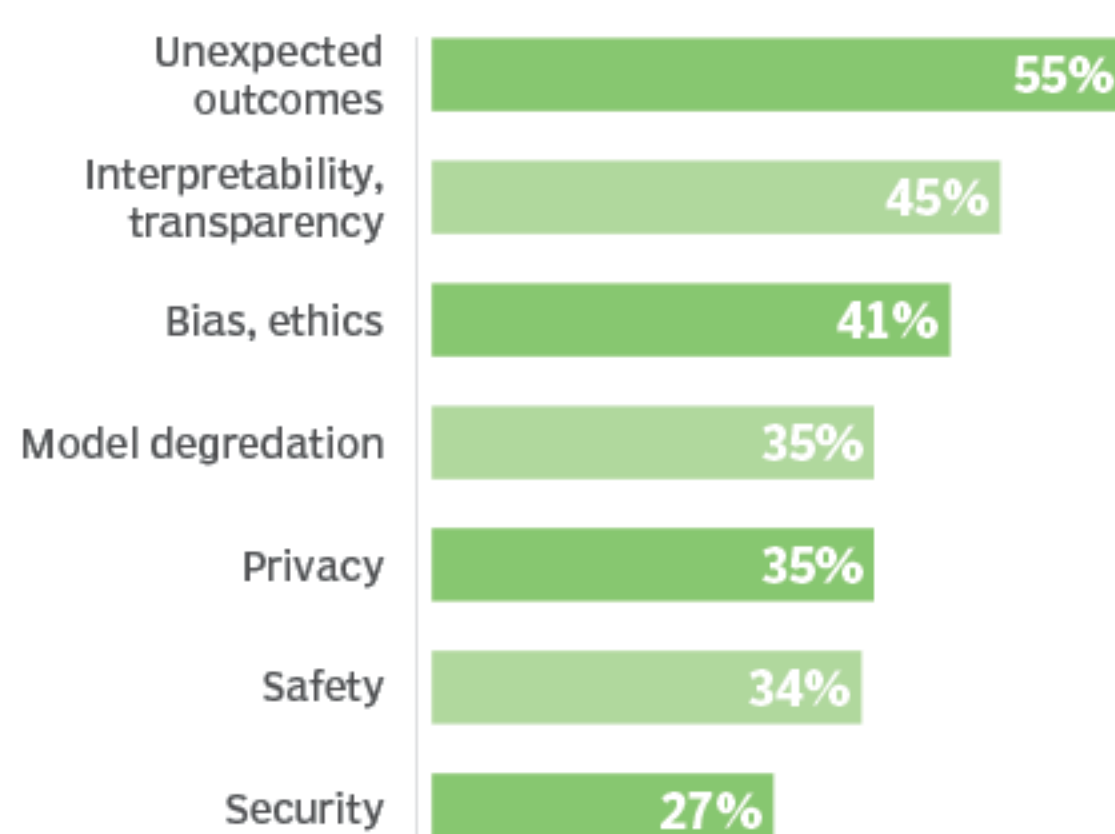
While the data and data scientists' shortage are common AI pain points, respondents noted that company culture not supporting/recognizing a need for AI is the largest issue. Lack of identified use cases that are unbiased and non-sponsored is likely rolled into company culture issues.

What is the biggest skills gap that you need to hire for?



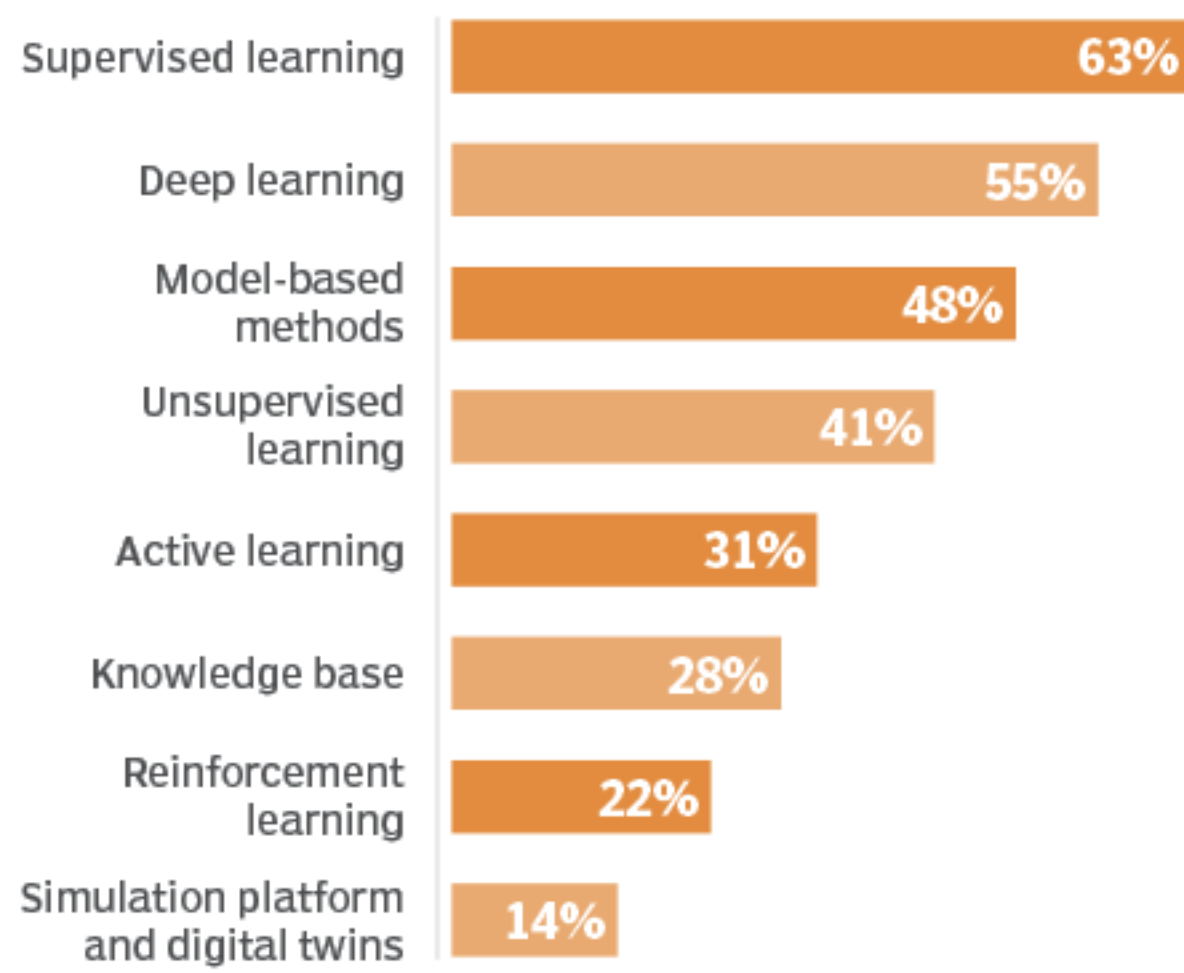
Yes, there's a talent crunch for modelers and data scientists. As AI grows, enterprises may have to begin looking internally to develop talent, rather than hire out.

What risks do you check for during machine learning model building and use?



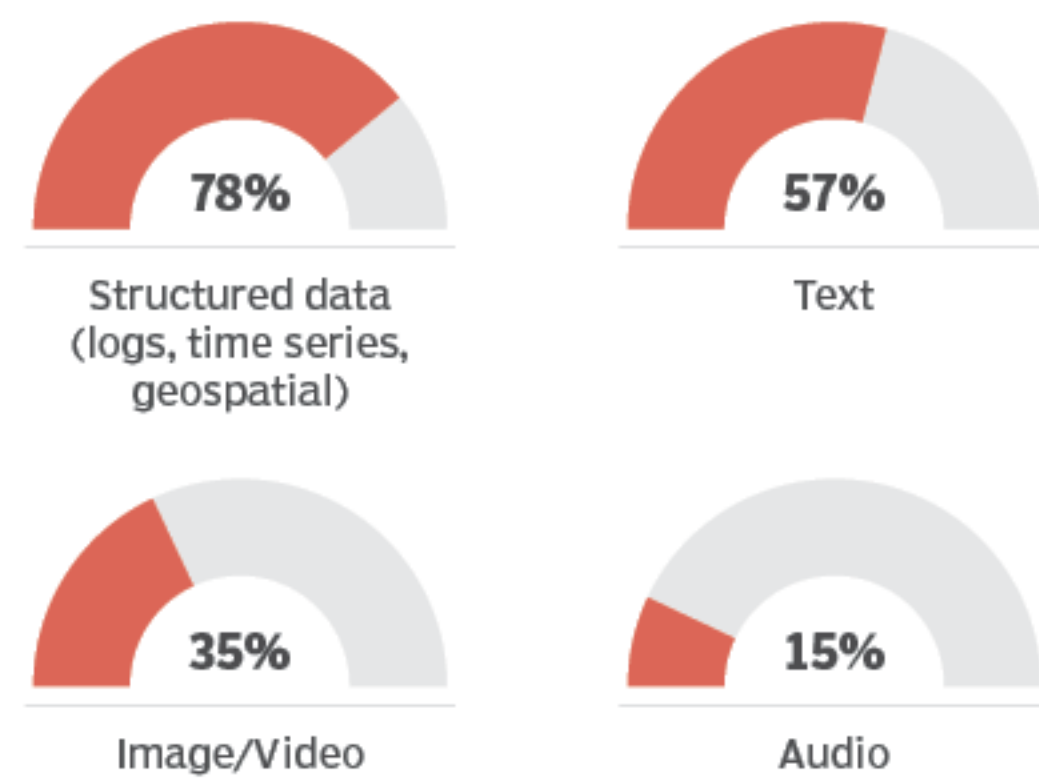
## The nitty gritty of AI technology

What types of AI technologies are you using?



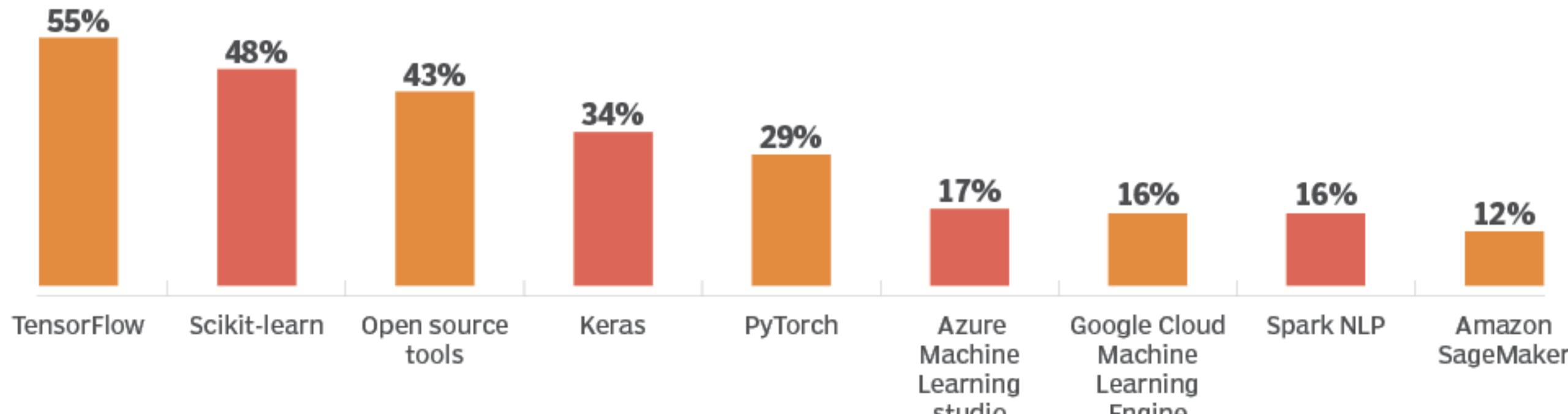
"Last year was a big year for natural language models in the research community."—LORICA

What training data are you using for your AI systems?



"You can't just take a general purpose natural language model and apply it to your domain, which might be some specific area in healthcare. It turns out that in healthcare, even the different specializations use different lingo, so you need to have awareness that while generic models allow you to get started, you need to pay attention to the fact that you will have to tune them."—LORICA

Which AI tools are you using?



Over half of all survey respondents are currently using TensorFlow, with just under half utilizing Scikit-learn and other open source tools. Keras and PyTorch were common answers, but conglomerate companies tools— with under 20% of respondents using them in their software tool kit.