We surveyed 500 CIOs about the rise of automated decision-making and its growing application of machine learning.

Among our top findings...

- 87% of CIOs expect substantial value in decision automation.
- 64% of CIOs expect competitiveness.
- 61% of CIOs expect reducing risk.
- 69% of CIOs expect accuracy of decisions.
- 76% of CIOs expect top-line growth.
- 32% of CIOs expect automation to support digital work.
- 45% of CIOs have redefined their job roles.
- 22% of CIOs have recruited employees with new skill sets.
- 43% of CIOs have made strategic decisions.
- 40% of CIOs have developed methods for monitoring.
- 39% of CIOs have reduced mistakes made.
- 26% of CIOs have piloted the technology.
- 20% of CIOs are using machine learning.
- 3% of CIOs are using machine learning across the business.
- 11% of CIOs have plans to use machine learning in some areas.
- 5% of CIOs have no plans to use machine learning.

CIO Responsibilities are Expanding

- My role is expanding to lead broader, organization-wide digitization efforts.
- My focus is shifting from operations, rather than strategy, in the planning phase.
- I am increasingly focused on strategy, rather than operations.

First Movers have a head start

- We isolated a group of respondents—we call them ‘First Movers’—who are ahead of their peers in spending on machine learning.
- First Movers have made greater investments in the adoption and maturation of automated decision-making.
- They are ahead of the curve in using machine learning to support digital work and developing new talent strategies.

Investment in machine learning will increase sharply in the next three years

- Nearly 90% of CIOs are using or planning to use machine learning.
- Investment in machine learning will increase sharply in the next three years.
- 68% of CIOs expect substantial value from automation.

CIOs are beginning to make organizational changes

- CIOs are beginning to make organizational changes to support digital work.
- Organizational changes include recruiting employees with new skill sets and developing methods for monitoring.
- The most common changes include recruiting employees with new skill sets, developing methods for monitoring, and reducing mistakes made.

To what extent do you expect decision automation to...

- Reduce risk: 61%
- Improve competitiveness: 64%
- Improve accuracy of decisions: 87%
- Increase top-line growth: 69%

Most complex capability

- Speed of decisions: 83%
- Organizational changes: 64%
- Top-line growth: 22%
- Accuracy of decisions: 18%

Fixes for machine learning and its mainstream adoption

- Removing a substantial barrier: 40%
- Removing a complete roadblock: 32%

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