



Human Performance in the Age of AI

The role of the human is changing in the presence of an amazing wave of artificial intelligence. The paradox is that the more automation we introduce, the more critical the role of the human becomes. AI forces us to be more precise about the way we learn, the way we train, and the way we work.TM

With this paradigm shift, how will individuals, teams, and organizations keep pace, adjust, learn, and perform in this exciting new era?

Human-Centered Engineering®

Since its founding more than 20 years ago, Aptima's mission has been to improve and optimize performance in mission-critical, technology intensive settings. We apply deep expertise in how humans think, learn, and perform to today's challenges. Whether for fighter pilots functioning in the cockpit, medical staff in the ICU, or teams collaborating across distributed networks, our solutions help measure, assess, inform, and augment human performance in defense, intel, aviation, law enforcement, and healthcare.



Aptima's capabilities

- Ensure the synergy of humans operating within complex organizations
- Accelerate learning, training, and readiness for what's next
- Enhance productivity and insight through data analytics and intelligent interfaces

How?

Aptima's unique approach combines the principles of social and behavioral science with rigorous quantitative computational methods.

The result are innovative, human-centered solutions that facilitate peak performance in information rich, technology-driven environments.

AI changes how we work, learn, and perform

Aptima: Moving Humans, Technology, and AI Forward

Engineering Human-AI Teams

As workplaces evolve into multi-species organizations combining humans, agents, and AI, Aptima's world-class multidisciplinary staff is addressing the distinct dynamics and challenges of integrating humans and AI systems. This includes the shared reasoning, intent, context, and communications required. By placing the human at the center of this relationship, Aptima is engineering solutions for a productive, cooperative, and ethical human-AI future, one that augments—not replaces—humans.

Intelligent Performance Assessment

Our multi-sensored world is leading to unparalleled amounts of information about our behaviors, activities, and even our emotional and physiological status. How will we comprehend this complexity? Aptima is combining AI with its proven performance assessment technologies to make sense of these signals. Our tools provide a successive cycle to measure, analyze, and understand this data to optimize human performance.

Fusing Lifelong Learning and Work

Continual readiness demands new approaches. Occasional, one-size-fits-all training, or classroom-only instruction no longer adequately prepares workforces. Aptima is bridging the gap between the demands of work and the need to learn by leveraging the data around us. Our analytic models and systems transform assessments into personalized, high-impact learning experiences that support continuous, ongoing skill and career development.



Aptima: Preparing for the Future Now

- ▶ Building the fundamental science of 'agile teaming' to dynamically allocate abilities, tasking, and workloads across complex, mixed human-machine systems with DARPA.
- ▶ Developing a Sailor Adaptive Intelligent Life Long Learning System to provide a point-of-need "learning GPS" to manage all aspects of careers and training with Adobe and MARi.
- ▶ Deploying a continuous Confined Spaces Monitoring System fusing sensors and analytics to monitor and protect worker health and safety in hazardous, high-risk environments with the Air Force Sustainment Center.
- ▶ Advancing an automated satellite and space object maneuver prediction technology for space analysts with the Air Force Research Laboratory.
- ▶ Designing a tool that anticipates analyst's information needs, discretely prioritizing and formatting messages to optimize information and minimize disruption, with the Army C5ISR Center.

By the Numbers

Aptima was founded in 1995 with the sole mission to measure and improve human performance in sociotechnical environments. Today, Aptima is the premier human performance assessment firm in its market.



950

Contracts

across the Government, including DoD, NASA, DHS, and DOT

470

Industry Partners

and consultants who are subject matter experts in their fields

250

Customers

across the Government, commercial, and healthcare sectors

160

Employees

with multidisciplinary expertise in human performance

100

Academic Partners

from leading universities, colleges, and laboratories

40

Patents

and patents pending, with technology licensing available

26

Years

optimizing human performance in mission-critical environments

21.3%

Growth

estimated through 2020 (compounded annual growth rate)

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