America at 250: A Beacon for the AI Age Conference

BOSTON GLOBAL FORUM · AI WORLD SOCIETY · LOEB HOUSE, HARVARD UNIVERSITY · MAY 1, 2026

SPECIAL PROFILE

Daphne Koller

Pioneer of Probabilistic AI, Online Education, and AI-Driven Medicine

Founder & CEO, insitro · AI-Driven Drug Discovery

Co-Founder, Coursera · Co-Founder, Engageli

Rajeev Motwani Professor (Adjunct), Stanford University

MacArthur Fellow · ACM–Infosys Award · ACM/AAAI Allen Newell Award

Member, U.S. National Academy of Sciences · National Academy of Engineering

Honored as one of the America 250 · AI Pioneers

I *The Mathematics of Reasoning Under Uncertainty*

FROM PROBABILISTIC GRAPHICAL MODELS TO A NEW ERA OF MACHINE LEARNING

Daphne Koller is among the foundational figures of modern artificial intelligence — a researcher, professor, and three-time founder whose career has repeatedly shaped what is possible at the intersection of computer science, education, and the life sciences. Born in Jerusalem and educated at the Hebrew University, where she completed her bachelor's degree at the age of seventeen, she received her doctorate in computer science from Stanford in 1993 and joined the Stanford faculty in 1995, eventually serving as the Rajeev Motwani Professor of Computer Science.

Her foundational research established the modern theory of **probabilistic graphical models** — the mathematical framework that allows AI systems to reason rigorously under uncertainty, drawing inferences from incomplete and noisy information. Her textbook *Probabilistic Graphical Models: Principles and*

Techniques, written with Nir Friedman, is the canonical reference in the field. For this body of work she received the **MacArthur Fellowship** in 2004, the IJCAI Computers and Thought Award, the inaugural **ACM–Infosys Foundation Award** in 2008, and the **ACM/AAAI Allen Newell Award** in 2019.

She is a member of the U.S. National Academy of Sciences and the National Academy of Engineering, a Fellow of the American Academy of Arts and Sciences and the International Society of Computational Biology, and a recipient of the Presidential Early Career Award for Scientists and Engineers — honors that mark her among the most decorated American computer scientists of her generation.

"The ability to transfer ideas from one discipline to another, and to create a synthesis that did not exist before, is where the most interesting problems live."

II *From Coursera to insitro*

BRINGING AI TO EDUCATION AND TO THE DISCOVERY OF MEDICINES

In **2012**, Koller co-founded **Coursera** with her Stanford colleague Andrew Ng, where she served as co-CEO and President. Coursera became the world's largest platform for massive open online courses, reaching **more than 100 million learners worldwide** — a project that, more than any other in its era, demonstrated what was possible when artificial intelligence and the internet were turned together toward the democratization of higher learning.

In **2018**, Koller founded **insitro**, an AI-driven drug discovery and development company that integrates machine learning with high-throughput biology to transform how new medicines are found and brought to patients. Under her leadership as Founder and CEO, insitro has built the first fully AI-enabled, end-to-end causal-discovery platform for drug development, with a pipeline of validated candidates for multiple diseases. Koller is a co-founder of Engageli, a digital learning platform; previously served as Chief Computing Officer of Calico, the Alphabet life-sciences subsidiary; and was named to the inaugural **Forbes 250: America's Greatest Innovators** list in 2026.

Across three decades and three institutions — Stanford, Coursera, and insitro — Koller has shown what it means for an American computer scientist to translate foundational mathematics into societal change: first by establishing the theoretical foundations of probabilistic AI, then by reshaping how human beings learn, and now by reimagining how human beings discover the medicines on which their lives depend.

"We need to make sure we preserve all three: the powerhouse of universities, the talent pipeline they create, and the support for the innovation that comes from them. That is what makes this country what it is."

III *America at 250: AI Pioneers*

RECOGNIZING A FOUNDATIONAL CONTRIBUTION TO THE AI AGE

At the **America at 250: A Beacon for the AI Age Conference** at Loeb House, Harvard University, on **May 1, 2026**, **Governor Michael Dukakis and Nguyen Anh Tuan** honor Daphne Koller as one of the **America 250 · AI Pioneers** — the fifty leaders whose work is shaping America in the Age of Artificial Intelligence.

The Conference's recognition celebrates a career that has shaped three of the most consequential frontiers of artificial intelligence: the mathematical foundations on which modern machine learning depends, the global democratization of higher education, and the application of AI to one of the hardest and most important problems of our time — the discovery of new medicines. Koller's career stands as one of the clearest examples of what American computer science can do for the world when foundational scholarship, entrepreneurial ambition, and moral seriousness move together.

"The future is in a partnership between the human and the machine — and the most important question is what we choose to build together."

From the foundations of probabilistic AI to the platforms that brought higher education to a hundred million people, from Stanford to Coursera to insitro, Daphne Koller has spent her career building the technologies, institutions, and companies on which the AI Age depends — and showing what American innovation looks like when it is rigorous, ambitious, and devoted to human flourishing. America at 250 honors that lifetime of work.

CONCLUSION

From the foundations of probabilistic graphical models to the global expansion of online education, from Stanford to Coursera to insitro, ***Daphne Koller has shown what American AI can do for the life of a society*** *— work that will define the foundations of machine learning, the future of higher education, and the discovery of medicines for generations to come.*