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European Laboratory for Learning and Intelligent Systems (ELLIS) Launches
Top European Machine Learning Scientists Join Forces to Establish European Excellence Network for Public Artificial Intelligence Research

MONTREAL -- December 6, 2018 – The European Laboratory for Learning and Intelligent Systems (ELLIS), first described in an open letter earlier this year, is formally announcing the formation of its professional association that will undertake the organization and building of the intellectual and physical structures of ELLIS.

Leading European AI researchers, including Nicolò Cesa-Bianchi, Zoubin Ghahramani, Sepp Hochreiter, Cordelia Schmid, Jürgen Schmidhuber, Bernhard Schölkopf, Max Welling and many more assembled to establish a society to found a cross-national European Laboratory for Learning and Intelligent Systems (ELLIS).

The comprehensive plan for ELLIS includes the creation of a network to advance breakthroughs in AI, a pan-European PhD program to educate the next generation of AI researchers, and a focal point for industrial engagements to boost economic growth by leveraging AI technologies.

ELLIS will focus on modern AI, which relies heavily on machine learning methods such as deep neural networks that allow computers to learn from data and experience. Machine learning recently made great progress leading to rapid advances in long-standing challenges such as computer vision, speech recognition and machine translation. It will also be an essential technology for self-driving vehicles and advancements in medicine.

The ELLIS announcement was made at the Conference on Neural Information Processing Systems (NeurIPS), the leading international conference on machine learning. NeurIPS attracted 8500 scientists, industry and government representatives to Montreal. Terrence Sejnowski, president of the Neural Information Processing Systems Foundation, says that "major breakthroughs in AI in recent years were published at NeurIPS, often by European scientists. The new society will help catalyze European AI research and business." At the time of the announcement Montreal was also hosting a G7 conference on artificial intelligence.

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The presidents of six European science organisations have called for larger budgets for top-quality scientific research across Europe. "Artificial Intelligence is at the cutting edge of basic research, yet it also has the potential of changing the world for the better. Europe will only be able to shape this development if we invest in outstanding research in this field," says Martin Stratmann, president of the German Max Planck Society.

Antoine Petit, French computer scientist and president of CNRS, emphasizes that he is "very impressed by the efforts and investments made in Asia and North America. It is today that Europe too must make AI a real priority if it does not want to fall behind inexorably. Such a dropout would be dramatic from an industrial and economic point of view. It would also be very worrying for the consideration of our values in the construction of tomorrow's AI."

Sir Venki Ramakrishnan, President of the Royal Society, adds that "it is essential for British science to build strategic relationships with our leading European colleagues, and with AI being a key pillar of our UK industrial strategy, this is exactly the kind of initiative we welcome."

A number of European companies have already agreed to support this initiative including Audi, AVL, Bayer, Bosch, DeepMind, Greiner, Porsche, Siemens as well as US companies such as Amazon, Facebook, Google, NVIDIA, Qualcomm and the Canadian startup Element AI.

Geoffrey Hinton, Emeritus Professor of Computer Science at the University of Toronto, an engineering Fellow at Google and one of the leading scientists in AI, says: "Deep learning is at the core of the staggering progress we are witnessing in AI today. Companies such as Google, Facebook, Amazon, Apple and Microsoft are investing billions in developing this technology. If Europe wants to keep up with North America and China, it needs to focus its major AI investments on deep learning."

Yoshua Bengio, co-director of the program in Learning in Machines & Brains of the Canadian Institute for Advanced Studies (CIFAR) and co-founder of Element AI, emphasizes that AI is as much about excellent research as it is about dialogue with and embedding into society. "We need a constructive discussion about ethical uses of AI, and a necessary prerequisite of this is that the highest level of AI research is done in open societies with humanist values such as Canada and the European countries. We have already signed a letter of intent to collaborate with the scientists driving this exciting new European initiative, and look forward to jointly promoting open AI research at the highest quality level."

About the European Laboratory for Learning and Intelligent Systems (ELLIS)
Established on December 6th 2018 the European Laboratory for Learning and Intelligent Systems (ELLIS) is a pan European scientific organization which focuses on research in and the advancement of modern AI, which relies heavily on machine learning methods such as deep neural networks that allow computers to learn from data and experience.

For more on ELLIS visit https://ellis.eu
#SupportingEllis

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Further Quotes

"Google AI is a strong supporter of open research and of the idea of close collaboration between industry and academia on basic research. The ELLIS initiative can provide the ground for the development of a very strong scientific ecosystem in Europe, supporting the amazing research talent in Europe, and allowing it to bring its unique perspective to the field."
Jeff Dean, Google Senior Fellow and Head of Google AI

"Artificial intelligence will fundamentally change the world. In the automotive industry, it is used for autonomous driving functions, but is also just as relevant for optimising company processes. Porsche expressly supports the Ellis Initiative. We must act in order to meet our ethical responsibilities in the development and application of AI. We need research and training in this field at an excellent level – also in Europe."
Oliver Blume, CEO of Porsche AG

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"At Facebook we believe AI brings transformative potential. To ensure it benefits everyone, we do research in the open and collaborate with academia around the world. Europe has vibrant AI talent, and we're enthusiastic about the potential for ELLIS to further boost AI research in Europe, and ensure a diverse ecosystem of experts around the globe."
Yann LeCun, Chief Scientist at Facebook AI and Joaquin Quinonero Candela, Director of Engineering at Facebook AI

"Funding and support for AI and machine learning is essential for our European research partners who have initiated the ELLIS initiative during NeurIPS 2018 and the G7 meetings in Montréal this week—and we welcome this new scientific organization," said Jean-François Gagné, Co-founder and CEO at Element AI. "We strongly believe in the importance of research and development, and as Element AI expands globally, we are proud to be associated with the ELLIS group as partners 'on-the-ground' in the European community."
J.F. Gagné, CEO of Element AI

"AI plays a crucial role in technology today and in future and will change the world. At Bosch we focus on the development of robust, safe and explainable AI powering our products "invented for life". Achieving excellent, world leading research in AI combined with close academia – industry collaboration will ensure the European competitiveness in this space, therefore Bosch supports the ELLIS initiative."
Michael Bolle, CDO&CTO Robert Bosch GmbH

"Europe is home to some of the world's leading artificial intelligence researchers, with industry and academia coming together to advance the state of the art in the field. The ELLIS initiative has the potential to boost the already-strong international ecosystem and help make the case globally for AI's safe and ethical deployment."
Demis Hassabis, co-founder and CEO, DeepMind

"Through deep learning, compute power and big data we have now reached a threshold where AI drives innovation in industry and shapes the society of tomorrow. To maintain prosperity and European values, Europe must act now. ELLIS is the perfect vehicle to become a major player in AI."
Max Welling, Research Chair at the University of Amsterdam and Vice President Technologies at Qualcomm

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"ELLIS represents pioneering leaders in AI research from across Europe. By working together, we can build AI systems which will benefit all our societies."
Adrian Weller, Program Director for AI at The Alan Turing Institute

"It was the inspiring surrounding of the European academic environment that enabled me to discover the fundamental Deep Learning problem, the vanishing gradient, and one of its solutions, the LSTM network, during my Master and PhD studies. Today this European invention is used in most modern speech and text processing systems of Amazon, Apple, Facebook, Google, Microsoft, etc. ELLIS will strengthen the unbroken creativity of the excellent European scientific community for machine learning and deep learning, the heart of modern AI and help European companies to leverage those results."
Sepp Hochreiter, **head of the LIT AI Lab, Linz and head of the Institute for Machine Learning at the Johannes Kepler University Linz (JKU Linz) as well as Director of the Institute of Advanced Research in Artificial Intelligence**

"Since 1965, Europeans have created most of the basic ingredients of Deep Learning and modern AI. ELLIS will help to continue this tradition."
Jürgen Schmidhuber, Scientific Director of the Swiss AI Lab IDSIA (USI & SUPSI), Co-Founder & Chief Scientist of NNAISENSE

"I fully support the ELLIS initiative, and I am confident it will continue Europe's history of excellence in machine learning and AI."
Seppo Linnainmaa, creator of the automatic differentiation or backpropagation method which is now widely used to train deep artificial neural networks.

"Researchers from all across Europe are pushing and advancing the state of the art in AI. We are committed to pushing the boundary of AI on behalf of our customers with our teams in many European cities and are looking forward to collaborating with ELLIS researchers."
Ralf Herbrich, Director Machine Learning at Amazon

"AI is a game changer. Its growing impact in industry is due to recent progress in machine learning and, particularly, deep learning. Initiatives like ELLIS are essential for establishing international leadership in AI areas most relevant for Europe."
Volker Tresp, Distinguished Research Scientist at Siemens, **Professor at the Ludwig Maximilian University of Munich**

"AI is the essential component to achieve TomTom's vision of a safer world, free of congestion and emissions. Working together with researchers of ELLIS to extend AI beyond the current state of the art, we foresee a great boost to power connected vehicles, smart mobility and, ultimately, autonomous driving and thus utterly support the ELLIS initiative."
Sören Sonnenburg, Director TomTom AI Geospatial Research at TTI / TomTom

"AI, with ML and Deep Learning, is the energy for our industry and for our society. ELLIS will take up the challenge of producing the best AI energy of tomorrow, bringing together research laboratories from all across Europe. We are proud to be in the game, to work together for the strength of Europe."
Rita Cucchiara, Director of the Italian national CINI Lab AIIS, for Artificial Intelligence and Intelligent Systems

 "Europe has amazing reserchers and students. ELLIS provides a much needed opportunity to join the US, Canada and China in developing the first generation of intelligent systems that will change science, technology and society."
Lorenzo Rosasco, Professor University of Genova, Visiting Faculty MIT, ERC Consolidator recipient

"Following decades of mostly scientific interest to the areas of AI, machine learning, neural networks, image processing and alike they are now centre of attention in a form of an extremely strong cocktail of game changing technologies that have enormous role to play in reshaping the industry (the so called 4th industrial revolution), society (social networks, mobility, autonomous transport, new types of security environment), health (digital health revolution) to name the few (one can add defence and others). Europe is bringing together its brightest minds, its most powerful research capabilities and ELLIS is the focal point. These are exciting times, but no time should be lost and no effort should be left to dissipate and be wasted. Let's join our hands and minds for the benefit of the Europeans and all people."
Plamen Angelov, Professor and Director LIRA (Lancaster Intelligent, Robotic and Autonomous systems) Research Centre, Lancaster University, UK and Vice President of the International Neural Network Society

"I believe the ELLIS initiative will be important for Europe's efforts to shape the future of Artificial Intelligence."
Ernst Dieter Dickmanns, creator of the first self-driving car

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"I'm thrilled to see these leading researchers creating a network for more collaboration across Europe and with the rest of the world building on the Statement of Declaration of Cooperation with Europe on AI. The UK Government's AI Council looks forward to joining forces with ELLIS to solve global challenges together."
Tabitha Goldstaub, Co Founder CognitionX and Chair of The UK Government's AI Council

"Given the profound impact of Artificial Intelligence (AI) not only on our economy and labor market but also on our society, Europe urgently needs to invest in nurturing, developing, attracting and retaining top talent in AI and particularly in machine learning related fields. ELLIS is a great initiative to enable us Europeans to achieve this goal and that's why I support it."
Nuria Oliver, Director of Research in Data Science at Vodafone; Member of the Spanish Royal Academy of Engineering

"Ellis will be an important milestone tightening European collaborations and synergies in the field of ML. Ellis is a wake-up call to European policy makers to finally vigorously act upon a topic that is essential for the future of Europe requiring high investments."
Klaus-Robert Müller, Professor of Machine Learning, Technical University Berlin, Member of Leopoldina

"Europe has been an incredibly creative place in the past. It would be great if it also participates in shaping the future, now that AI is rapidly changing the world. ELLIS will make decisive steps to keep and invite the best minds to help invent the future, to innovate and to generate positive impact in the world."
Matthias Bethge, Director of the Tübingen AI Center, Professor for Computational Neuroscience and Machine Learning at University of Tübingen

"Europe is home to some of the leading international research groups in artificial intelligence. These technologies have the potential to improve our lives. The development is still in its infancy, and ELLIS wants to ensure that the highest level of research in this field will continue to be performed in the open societies of Europe."
Bernhard Schölkopf, Director at the Max Planck Institute for Intelligent Systems

"Knowledge 4 All is delighted to support this initiative, which will help to provide a voice for machine learning and AI researchers interested in promoting the development of these technologies and their wise use both in Europe and beyond."
John Shawe-Taylor of the Knowledge 4 All Foundation, established as the legacy charity of the influential European machine learning Network PASCAL

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