



PARTNERSHIP ON AI

2019

ANNUAL REPORT

BUILDING A CONNECTED COMMUNITY
FOR RESPONSIBLE AI





LETTER FROM THE FOUNDING EXECUTIVE DIRECTOR

JANUARY 30, 2020

The last several years have brought accelerated development in artificial intelligence technologies and their applications. The world around us is being rapidly shaped by these advancements, and the questions surrounding AI's impacts have become increasingly relevant to the research community, governments and the public sector, global industry, nonprofit organizations, advocates, philanthropy, and more.

The Partnership on AI was started by a subset of these very types of stakeholders two years ago, with a simple premise: AI is already having a transformative impact on our society, and the essential work of **ensuring that AI technologies are fair, safe, just, and inclusive is a critical responsibility that must be collectively prioritized.**

PAI believes that the AI developer community has a special obligation to push for, understand, and ultimately implement changes around the design and practice of ethical technology. We also believe that this work must be informed by diverse voices, multidisciplinary expertise, and a deep understanding of the context in which technology is being used.

Already, we have seen the power of this premise come to life in the Partnership's work. Over the last year, PAI has been proud to emerge as a hub of experimentation in multistakeholder design, and a place where competing entities and diverse equities can converge to foster shared dialogue and identify common cause. We have tackled urgent topics that require shared understanding, more effective coordination, or deeper investment and attention from the global community. These include the impacts of AI on media manipulation, the use of algorithmic assessments in high-stakes domains, how to improve transparency and explainability in machine learning systems, and freedom of movement and scientific **collaboration for the global AI community—among others.**

In 2019, we also grew our community to over one hundred Partner organizations, representing a diverse array of interests, spanning 13 countries and four continents. We hosted our second-annual All Partner Meeting in London, where over two hundred community members gathered to advance existing projects, talk about the most urgent needs of the field, and to launch new work. Notably, we added 21 new team members to our growing staff. We gathered PAI community members in Montgomery, San Francisco, London, New York, Atlanta, Boston, Berlin, Beijing, Luxembourg, Montreal, Chicago, Seattle, Vancouver, Philadelphia, and more. We launched the PAI Fellowship Program and ended the year with an impressive research publication record at several major research conferences.

As we look toward this next year of our evolution, the Partnership aims to drive a race-to-the-top in moral leadership among the leading entities and individuals developing AI. This work could not come at a more crucial time: the global community requires an evidence base for the design, practice, and governance of responsible AI. We will continue to support practitioners of AI in not shying away from the hard questions, provide tools for advocates protecting essential rights, and work to ensure that institutions and individuals empowered to make decisions about the future of technology development do not cede their critical responsibilities to society. We will strive to develop the AI field such that it is deeply informed by other disciplines, and by front-line communities impacted by technology every day. And we will endeavor to share what lessons about inclusive dialogue we learn along the way.

I look forward to continuing this important work hand-in-hand with our community as we head into 2020 and beyond.

Sincerely,

TERAH LYONS
Executive Director



OUR MISSION IS TO UNITE DIVERSE VOICES TO INFORM AND PROMOTE THE RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE.

WHAT IS PAI?

The Partnership on AI (PAI) is a global multistakeholder nonprofit committed to the creation and dissemination of best practices in artificial intelligence through the diversity of its Partners. By gathering leading companies, organizations, and people differently affected by artificial intelligence, PAI establishes a common ground between entities which otherwise may not have cause to work together – and in so doing – serves as a uniting force for good in the AI ecosystem. Today PAI convenes a coalition of over 100 Partner organizations from around the world to realize the promise artificial intelligence.

Fostering, cultivating, and preserving a culture of diversity and belonging in our work and in the people and organizations who contribute to it is essential to our mission, and embedded in our **tenets**. These values include a commitment to open research and dialogue on the ethical, social, economic, and legal implications of AI technologies, in order to maximize the benefits and address potential risks.

Crucially, the Partnership is an independent organization. While supported and shaped by our Partner community, the Partnership is ultimately more than the sum of its parts and will make independent determinations to which its Partners will collectively contribute, but never individually dictate.

OUR THEORY OF CHANGE

For AI to benefit all, a broad range of voices must contribute to answering important questions about its development, use, and impact. These voices should include researchers and developers, practitioners, and communities differently affected by AI. Our diverse Partners guide PAI's research agenda in the pursuit of responsible AI. At the same time, PAI works with our Partners to bring these insights to practice in their organizations, and in the world.

OUR VISION IS A WORLD WHERE BUILDERS, USERS, AND VULNERABLE COMMUNITIES WORK TOGETHER TO REALIZE RESPONSIBLE ARTIFICIAL INTELLIGENCE.

PAI is committed to generating learnings and guidelines on responsible AI by bridging the gap between those affected by technologies and those building them. Due to the power that they hold, AI researchers, engineers, and product leaders have a special role in understanding, advocating for, and implementing changes around responsible technology design and deployment. This process requires support from a cross-disciplinary, cross-sector community lending knowledge, experience, and perspectives that otherwise may not be adequately considered.

OUR COMMUNITY

The community at PAI conducts research, organizes discussions, shares insights, provides thought leadership, consults with relevant third parties, responds to questions from the public and media, and creates educational material that advances the understanding of AI technologies. Our Partners include for-profit technology companies, representatives of civil society, academic and research institutions, start-ups—and beyond. Together we work as a multistakeholder organization to:

- DEVELOP AND SHARE BEST PRACTICES
- ADVANCE PUBLIC UNDERSTANDING
- PROVIDE AN OPEN AND INCLUSIVE PLATFORM FOR DISCUSSION AND ENGAGEMENT
- IDENTIFY AND FOSTER ASPIRATIONAL EFFORTS IN AI FOR SOCIALLY BENEFICIAL PURPOSES

"We cannot make AI serve society if we do not have numerous voices and perspectives around the table. PAI offers these invaluable spaces for us to meet, learn and explore new & sustainable ways forward."

CHRISTINA COLCLOUGH UNI GLOBAL
DIRECTOR OF PLATFORM AND AGENCY WORKERS, DIGITALIZATION AND TRADE



13

Countries represented across the Partnership



21

New Partners in 2019



PAI prioritizes activities that allow for our diverse network of stakeholders to convene and collaborate across sectors and issue areas. PAI Partners experience community through immersive experiential learning, our annual convening of all Partners, and workshops and sector conferences throughout the year.



25
Workshops



8
Cities



PAI Fellows, Summer 2019, San Francisco, CA.



IMMERSIVE LEARNING

PAI designs our work and community to include experiential experts. This intentionality is based on the value and belief that in order to achieve our mission, those who are building and deploying AI systems must get proximate to the contexts in which AI technologies operate. The Immersive Learning program aims to ensure that the PAI community is deeply informed and aware of the context in which AI decision-making operates. This programming model was piloted with a trip to Montgomery, Alabama, to place issues of fairness, accountability, and transparency in machine learning into important social and historical context. PAI convened Partners at the Equal Justice Initiative's Legacy Museum and Peace and Justice Memorial, which powerfully conveys the inextricable relationship between slavery and mass incarceration in the United States.

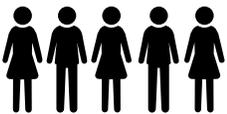
Equal Justice Initiative's Legacy Museum and Peace and Justice Memorial, Montgomery, AL



ANNUAL ALL PARTNERS MEETING

Critical to PAI's mission is our multistakeholder approach to creating AI for the benefit of people and society. This approach is brought to life when PAI's member community converges for our annual All Partners Meeting (APM). Over the course of two days, more than 200 experts from academia, civil society, and global industry contribute their diverse perspectives to advance the Partnership's mission of responsible AI.

Annual All Partners Meeting, London, England U.K.

5 Researchers participated in PAI's Fellowship Program in 2019



"PAI is an exciting organisation to work with given its ability to create real positive change in the field of AI. It was great to welcome partners to London as we build our global voice on beneficial and ethical AI."

LAURA ELLIS BBC (APM PROGRAM COMMITTEE)
HEAD OF TECHNOLOGY FORECASTING

FELLOWSHIP PROGRAM

The Fellowship Program is PAI's technology and ethics research initiative designed to deliver ambitious projects in collaboration with our community and the broader, multidisciplinary AI research field.

"As a fellow at PAI, I was able to support several ongoing projects aligned with my expertise and had the flexibility to pursue my own research interests freely. This independence really enabled me to creatively explore my potential as a researcher, as well as expose myself to a variety of collaborators, research contexts and new topics."

DEBORAH RAJI PAI RESEARCH FELLOW



PAI consults and collaborates with its Partners to advance best practices for the responsible and inclusive development and deployment of AI. We work to ensure that such practice is applied by researchers, developers, and engineers in the field, and is informed by a wide community of experts, disciplines, and perspectives. PAI's **thematic pillars** - Fairness, Transparency, and Accountability; Safety-Critical AI; Social and Societal Influences; AI, Labor, and the Economy; Collaboration between People and AI Systems; AI and Social Good — represent the complete spectrum of projects we may undertake in the field. Across these pillars, the Partnership prioritizes projects based on the timeliness of the work, the unique perspectives of our Partners, and the work's potential for impact.

SIGNATURE MULTISTAKEHOLDER WORK IN 2019

ALGORITHMIC DECISION MAKING IN CRIMINAL JUSTICE

In response to the widespread use of algorithmic tools that may unfairly sentence defendants in the criminal justice system, the Partnership produced a report which reveals the immaturity of the tools currently in use and calls for baseline requirements to be met prior to the continued use of these tools.

VISA POLICIES FOR GLOBAL AI/ML TALENT

Today's visa application systems diminish the mobility of AI/ML talent, often enhancing inequity seen across many dimensions of the technology sector and the AI/ML field. The Partnership provided governments and policymakers with recommendations on how to adjust policies to promote a globally diverse exchange of research and ideas for stronger and more responsible AI.

AI & MEDIA INTEGRITY STEERING COMMITTEE

Coordinated, multistakeholder work that brings together researchers, technologists, advocates, and other experts in the AI and media ecosystem is vital for countering the emergent threat of AI-generated mis/disinformation. With the Steering Committee's involvement in the **Deepfake Detection Challenge** (DFDC), PAI is helping shape the development of technologies built to identify video manipulations and promote media integrity.

"The Partnership on AI report highlighted that in many places where AI systems were being used to provide risk assessments, there was inadequate governance around how judges, bail officers or parole boards ultimately deciding whether to put or keep someone in jail should use the risk score, and how heavily it should be weighed against other factors."

JEREMY KAHN BLOOMBERG LP.
FORMER SENIOR WRITER
APRIL 26, 2019

A STANDARD FOR DOCUMENTATION IN MACHINE LEARNING (ABOUT ML)

As a growing number of technology companies realize the importance of AI principles and ethics, how can they ensure that these principles take shape in practice? One way to close the gap between principles and practice is through enhanced documentation. ABOUT ML is an ongoing initiative that applies a multistakeholder framework in the development of documentation which describes how machine learning systems should be used.

"PAI has been a wonderful forum of interactions on the future of AI. With its multistakeholder nature of partners, discussions reflect diversity of views and background of participants that contrasts sharply from academic conferences. PAI is a highly valuable initiative that extends globally."

HIROAKI KITANO SONY COMPUTER SCIENCE LABORATORIES INC.
PRESIDENT & CEO



IN-HOUSE ACADEMIC RESEARCH: PAI LABS

Our multistakeholder work is complemented by internal expertise and research capacity. Projects from PAI Labs in 2019 explored understandings of fairness in machine learning, tools that **enable safe interaction and good performance in high stakes environments**, how organizations view and **apply explainable machine learning**, and tensions between **legal and machine learning definitions** of fairness.

In 2020, the Partnership will continue multistakeholder research and initiatives, including the following areas. This work will generate recommendations for the responsible development, deployment, and use of AI, translate that work for public audiences, and create an inclusive environment for the deliberation of important questions about the future of AI and its impacts.



ALGORITHMIC DECISION-MAKING

Issues of fairness, transparency, and accountability are critical for the AI ecosystem to address, especially as machine learning and algorithmic AI systems are increasingly being deployed in high stakes settings. Although in some cases there can be benefits of these forms of algorithmic ranking, scoring, and decision making, some applications also present grave risks and problems. PAI will continue gathering its community in examining these challenges and setting new best practices and standards to address them.

TRANSPARENCY AND DOCUMENTATION

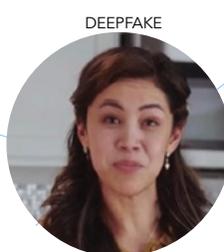
As machine learning technologies become increasingly pervasive in high-stakes contexts, transparency has emerged as a top priority for policymakers, the research community, and populations affected by their use. One way to increase this transparency is via documentation. Creating this documentation requires new kinds of processes among AI research teams and companies harnessing this technology which the PAI community is working hard to address.

AI AND THE MEDIA

The ubiquity of information and communication technologies has coincided with increasingly sophisticated methods of manipulating media content and information. This has significant global implications for the legitimacy of information online, the safeguarding of human rights and civil liberties, and the quality of public discourse. To address this challenge, PAI has begun foundational multistakeholder work, bringing together researchers, technologists, advocates, and other experts in the AI and media ecosystem to counter the emergent threat of AI-generated mis/disinformation. We have initiated meaningful cross-sector collaboration amongst stakeholders, begun projects to detect and defend against synthetic and modified content, and will continue to work to improve the tools and systems of media integrity.



ORIGINAL



DEEPPFAKE

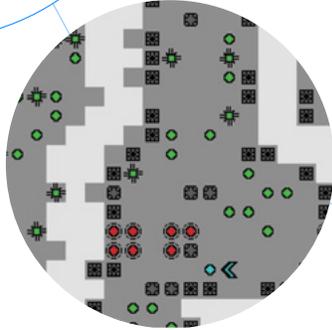


"PAI's work on Media Preparedness has enabled us and other partners to identify and collaborate on key pathways to preparing better for more malicious synthetic media - so we have detection, authenticity approaches, coordination and public engagement that actually works to reduce harms globally and a response that is not centered just on the Global North."

SAM GREGORY WITNESS

"There's no organization in the world quite like the Partnership on AI."

KHARI JOHNSON VENTUREBEAT
SENIOR AI STAFF WRITER
AUGUST 27, 2019.



AI, LABOR, AND ECONOMY

AI has tremendous potential to solve major societal problems and make peoples' lives better, but AI-driven automation has risen important questions about the interactions between new forms of automation, wealth distribution, and economic decision making with our existing economy. We need to think deeply about what economic future we want from AI, and PAI is gathering Partner organizations, economists, and worker representative organizations to try to form shared answers and recommendations for the role of AI in our economy.



"If our democracy is to remain strong, it must have powerful institutions dedicated to the common good. The Partnership on AI is just such an institution. The staff's mastery of authentically weaving together diverse, global voices and experiences to ensure that our society benefits is refreshing, and a best practice leadership example."

DR. MICHAEL MCAFEE POLICYLINK
PRESIDENT AND CEO

BENCHMARKING FOR RESPONSIBLE AND SAFE AI

Developing new benchmarks can help spur research in important subfields of machine learning, as well as to measure to what extent the research community is driving progress. Among other potential projects, PAI is collaborating with partners to improve and promote benchmarks for fake video detection and adversarial example resistance.

GROWTH OPPORTUNITIES

We are on a mission to shape best practices, research, and public dialogue about AI's benefits for people and society. Our Partners range across the AI sector, represent different regions of the world, vary dramatically in size and scale, and come to our work with unique values and perspectives. Through intentional, collaborative processes, PAI works to address some of the biggest questions of our time related to technology development. In order to pursue these projects through our multistakeholder community, PAI engages closely with philanthropic partners to test, innovate, and examine research questions in greater depth. We aim to grow in 2020 through leveraging philanthropy for a range of purposes, including building specialized areas of research through catalytic funding of our Fellowship Program.

UPCOMING FELLOWSHIPS

FELLOWSHIP ON DIVERSITY & INCLUSION

The technology industry's continued challenges with diversity and inclusion (including the hiring and retention of women and people of color in the AI sector) are interrelated with issues of bias in AI system development and deployment. In 2020, PAI will be investigating these pervasive challenges with the [Fellowship on Diversity & Inclusion](#), underwritten by [DeepMind](#). The results of the Fellow's work will be published for broad distribution.



DEMIS HASSABIS,
founder & CEO of
DeepMind announcing
PAI's D&I Fellowship at
APM in London.

FELLOWSHIP ON COMMUNITY ENGAGEMENT

From the beginning, it has been a central aspect of the Partnership on AI's mission to create and support inclusive opportunities for AI researchers, product developers, and other key stakeholders to communicate directly and openly with each other about issues relevant to AI and its influence on people and society. An essential aspect of this work is focused on ensuring that communities and individuals that are often adversely affected by AI are able to contribute their experience and expertise to the design, deployment, and governance of AI systems. PAI will be hosting a [Fellow](#) in 2020 who will enable PAI to systematically include diverse and underrepresented perspectives in all PAI work.

FELLOWSHIP ON MEDIA MANIPULATION

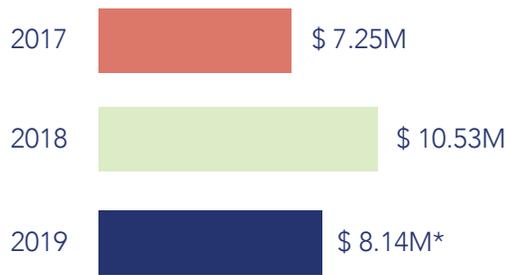
PAI's AI and Media research initiative examines the emergent threat of AI-generated mis/disinformation, synthetic media, and its impact on public discourse. In 2020, PAI and [First Draft](#), a leading non-profit tackling disinformation globally, are launching a [Research Fellowship](#) to investigate how media and technology platforms can effectively communicate video manipulation to the public and prevent audiences from being misguided by deceptive information. The Research Fellow will leverage PAI's partner community of technology, media, civil society, and academic research organizations, and, specifically, First Draft's expertise in the fight against mis/disinformation globally.



Join Us

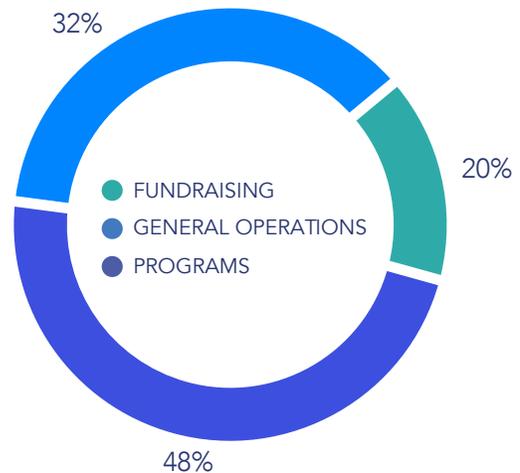
If your organization is interested in participating via formal membership in the Partnership on AI, please submit the following [expression of interest form](#). We are currently considering new Partners on a limited basis and will be in touch with further information.

ANNUAL REVENUE BY YEAR



*projected final revenue

EXPENDITURES 2019



THANK YOU TO OUR PHILANTHROPIC FUNDERS AND ALL OF OUR PARTNERS



ACADEMIC PARTNERS

3A Institute • AAIL • Allen Institute for AI • Berkeley Center for Law & Technology Policy (BCLT) • The Berkman Klein Center at Harvard University • Center for Human-Compatible AI • Center for Information Technology Policy • Center for Internet and Society • The Hastings Center • Hong Kong University of Science and Technology, Centre for Artificial Intelligence Research • Insight Centre for Data Analytics • Leverhulme Centre for the Future of Intelligence (CFI) • Markkula Center for Applied Ethics • MIT Initiative on the Digital Economy • The MIT Media Lab • Oxford Internet Institute • Tufts HRI Lab • University College London Faculty of Engineering • University of Tokyo • Next Generation Artificial Intelligence Research Center • University of Washington, Tech Policy Lab • Vision and Image Processing Lab at Waterloo University

NONPROFIT

Access Now • ACLU • AI Forum of New Zealand • AI Now Institute • American Psychological Association • Amnesty International • Article 19 • Association for Computing Machinery • Berggruen Institute • BSA Foundation • British Broadcasting Company (BBC) • Business for Social Responsibility (BSR) • Canadian Broadcasting Company (CBC) • Carnegie Endowment for International Peace • Center for Data Innovation • Center for Democracy and Technology (CDT) • Chatham House • CIFAR • Data & Society • DataKind • Digital Asia Hub • Digital Catapult • Doteveryone • Electronic Frontier Foundation (EFF) • Fraunhofer IAO • Future of Humanity Institute • Future of Life Institute • Future of Privacy Forum • G3ict • GLAAD • Human Rights Data Analysis Group (HRDAG) • Iridescent • The Joint Center for Political and Economic Studies • Longpath Labs • Mozilla Foundation • New America Foundation • Optic Technology - Human Technology Foundation • Organization United for Respect (OUR) • PolicyLink • Samasource • Shift7 • Underwriters Laboratories • UNI Global Union • UNICEF • United Nations • Development Programme • Upturn • Wikimedia Foundation • WITNESS • Women in Machine Learning & Data Science • XPRIZE

FOR PROFIT - INDUSTRY

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