Bertelsmann FOUNDATION 10 YEARS

B | Brief

Artificial Intelligence and the Transatlantic Alliance

By Jeffrey Brown

Jeffrey Brown
Manager, Future of Work & Artificial Intelligence
+1.202.384.1995
jeffrey.brown@bfna.org

Artificial intelligence (AI) is poised to transform economies and touch virtually every aspect of our lives in the coming years. Until recently, its potential was framed almost exclusively in economic terms, with boosters estimating it would contribute $16 trillion to the global economy by 2030. But AI has now come full circle, with policymakers and pundits alike recognizing its application to everything from health care and defense to farming and space exploration. Seizing on AI's potential, countries around the world are jockeying to lock in big gains first, dragging the technology into the no-holds-barred ring of geopolitical competition.

Given its emerging global reach and strategic import, AI will cut across borders and policy silos, and it will no doubt play a major role in the transatlantic relationship. Stakeholders on both sides of the Atlantic will have to overcome past hurdles and work together to shape how AI is developed and applied. And, perhaps most importantly, they will have to determine how to leverage the transatlantic alliance to compete with established global players and newcomers alike. This B | Brief lays out why policymakers should begin strategizing now.

Game on, but not Game Over

With geopolitical influence on the line, countries have queued up to declare their intent to not just lead but to dominate the field of AI. Russian President Vladimir Putin famously remarked last year that "artificial intelligence is the future not only of Russia but of all mankind." China's new guidelines for developing artificial intelligence identify AI as "the strategic technology that leads the future" and lays out concrete actions to spur investment and develop ethical and legal frameworks. Up-and-coming players such as the United Arab Emirates, South Korea and Canada have launched action plans to boost AI within their borders.

These declarations and strategies go far beyond the desire to reap commercial gain from the next Amazon or Alibaba. Rather, by marshaling human and financial capital to incubate AI technologies, countries aim to dictate how the technology is built and

shaped. Giving AI a push in its infancy is crucial given the gargantuan economies of scale needed to derive benefits from the technology. By developing AI domestically, countries secure a redoubt from which to pursue the export of their rules, software, protocols, platforms, laws and ethics, thereby staking claim to the commanding heights of technologies that will revolutionize economies, societies and lives.

So, where do the United States and Europe stand? Where might their comparative advantages lie? And how can we best equip the transatlantic alliance for the age of AI?

Europe: A Patchwork of Strategies

In Europe, Finland, France, and the United Kingdom are at the vanguard of AI policy. Finland released an AI strategy in December 2017 that zeroes in on the need to create open standards. France's 242-page strategy, issued March 28, focuses on ethics, investment and the need to diffuse AI across small and medium-sized enterprises. Artificial intelligence is a component of the U.K. Industrial Strategy, and a House of Lords select committee dedicated to the technology is set to release its report on April 16.

Notably absent is Germany, which, despite providing funding for AI-related research and development, lacks a comprehensive roadmap. However, Chancellor Angela Merkel's recent appointment of Peter Altmaier to lead the Federal Ministry for Economic Affairs and Energy signals that Germany is serious about the digital transformation of its economy, and telegraphs that it is eager to keep pace with France, the U.K. and Finland. An AI strategy may be on the horizon.

Overall, strategies in Europe have tended to hone in on the labor-market ramifications of AI while also stressing the need to bake ethics into the research, scaling and commercialization of underlying technologies such as machine learning and neural networks. Perhaps most consequentially, these strategies may be as much about uploading approaches and priorities to the EU level as they are about germinating domestic advances.

Andrus Ansip, the European Commission's vice president for the digital single market, has signaled that the EU's AI strategy, expected to be released in April, will shy away from specific regulatory approaches. In a blog post last fall, he wrote that the strategy will set general parameters for "how best to promote AI to benefit Europe's people and businesses, our society and economy." The EU also announced plans for a €20 million pan-European platform "to combine [AI] efforts, to develop synergies ... and to optimize Europe's potential."

As Europe continues to refine and consolidate its strategies, two major questions lurk. First, what impact, if any, will Brexit have on technological development in the U.K., Europe's AI pacesetter? Second, who will take the lead in developing AI policy within Europe — member states or EU institutions? Deciding which entities maintain competency for guiding strategy will be crucial to forging coherent partnerships outside the bloc.

The U.S.: The Laissez-Faire Model

Despite being the birthplace of AI, the United States has shied away from defining an overarching strategy to guide the technology's development and use. The glaring exception is military applications of AI, which feature prominently in the U.S. National Security Strategy released late last year. In contrast to Europe — and, for that matter, China — the United States has leaned almost entirely on its vaunted innovation ecosystem to advance AI research, development and even strategy: The U.S. artificial-intelligence sector attracted a world-leading $10 billion in venture-capital funding in 2017.

The lack of a strategic framework is surprising. The United States has taken advantage of previous scientific and technological challenges to advance comprehensive national strategies aimed at maintaining superiority. But, as in Europe, what scant high-level attention U.S. officials have paid to AI has focused on well-trodden issues. AI-focused reports released by the White House Office of Science and Technology Policy under President Obama belabor many of the ethical and labor-market considerations prominent in Europe. Despite one such report's call for countries to "work together to identify opportunities for cooperation and develop international frameworks that will help promote AI R&D," the United States remains without a roadmap to engage globally. Some slack has been picked up by Congress; last year, Reps. John Delaney (D-MD) and Pete Olson (R-TX) established the Artificial Intelligence Caucus to spur dialogue among policymakers and stakeholders in the private sector and civil society. Still, the legislative initiative has not investigated the geopolitical aspects of AI.

America's laissez-faire model for AI has advantages, but also very real drawbacks. First, while the United States has succeeded in articulating military applications of AI — largely to keep ahead of China and Russia — future U.S. competitive advantage is likely to hinge on sustaining an open approach to the technology across a range of domains. By casting its gaze beyond military uses, the United States would ensure it plays a leading role in spreading open AI standards across health care, financial services, education and many other areas. The pursuit of such an approach is also crucial to engaging with allies in Europe, and to repairing sometimes frayed transatlantic ties.

Equally important, it allows liberal democracies to align their values so as to push back against the "closed loop" model of AI pursued by geostrategic rivals.

Second, the United States is clearly well placed to capitalize on the private sector's ability to produce and advance dual-use AI technologies. However, the pitfalls of the laissez-faire model have been laid bare by recent revelations of Cambridge Analytica's harvesting of data through Facebook. The kerfuffle has generated a crescendo of calls to regulate internet-based technology companies. Since AI is already the subject of great speculation and debate, the American approach leaves the field vulnerable to sudden, knee-jerk regulation. One of the biggest challenges policymakers may face is weighing the desire for regulation with the simultaneous need for public debate and engagement on AI. By pursuing the adoption of open standards, policymakers would build in some level of transparency that could boost public trust and goodwill with allies.

Toward a Transatlantic Framework on AI

Facing intense global competition, liberal democracies in Europe and the United States have a clear interest in ensuring that AI is built, and governed, using the same principles that have engendered peace and prosperity since World War II. First and foremost, policymakers should draw on lessons gleaned from the internet era to start planning now, before AI is widely adopted across industry, society and government. Like-minded partners need to prepare the groundwork for collective action around common interests in areas such as regulatory policy to guide the research and application of AI technologies.

Instead of mirroring the compartmentalized AI ecosystems of geopolitical foes, the United States and Europe should work with allies such as Japan to build a framework of open standards. By closely linking markets with common values, these countries would not only promulgate their rules; they would capitalize on their ethnic, linguistic, cultural and economic diversity to produce higher-quality data, which would in turn improve AI systems.

An important precursor to any meaningful transatlantic cooperation will be identifying how both sides can position themselves in the global AI race. While this is often vaguely outlined in AI strategies, it will take time to determine the contours of competitive advantage. A transatlantic working group on AI could illuminate where the United States and Europe hold or are developing a comparative edge in specific AI technologies.

But to even begin to set the terms of engagement on AI, the United States and Europe will first have to outrun the long shadow cast by events of the past decade. From Europe's perspective, the WikiLeaks and Snowden revelations about U.S. surveillance remain poison pills that hinder deeper cooperation on digital policy. In addition, the frosty relationship between the White House and countries across Europe will have to thaw before substantive collaboration can take place. On the U.S. side, regulatory uncertainty generated by the EU's General Data Protection Regulation (GDPR) and heightened European scrutiny of American tech firms' tax arrangements will need to be shaken out before cooperation moves forward.

Still, these "Internet 2.0" issues should not prevent forward-thinking policymakers on both sides of the Atlantic from strategizing on their own, lest they be left behind. Given the complexity of AI technologies and their impact on public policy, regulators, lawmakers, and other experts will need mechanisms to ensure they stay up to date. For example, the feedback loop that already exists among researchers, academics, civil society, industry and policymakers in China — and which will soon be created in the EU through its burgeoning AI platform — could be emulated in the transatlantic context. The challenge will be not just developing experts fluent in the technical aspects of AI, but ensuring that they can bridge the gap between technology and policy.

For the moment, AI's effect on public policy is largely a black box. Widespread application of these technologies may very well shake the base assumptions that have guided the transatlantic relationship for decades. Policymakers will have to practice dialogue, exchange, and lifelong learning to understand how AI is shaping their environment and public policy — and how it is are affecting their constituents. This is precisely why they should begin planning now. While the precise impact of AI remains unknown, the complexity of the technology and the geopolitical stakes could not be clearer.