Recent Studies on Artificial Intelligence

DG IPOL Policy Department for Economic, Scientific and Quality of Life Policies published the following documents to assist the Special Committee on Artificial Intelligence in a Digital Age (AIDA) in its parliamentary work.

**Identification and assessment of existing and draft EU legislation in the digital field**

This study aims to deliver to the AIDA committee an overview of all existing and planned EU legislation in the digital field, together with an assessment of the interactions amongst these pieces of legislation. The analysis of the interplay between the legal acts, which regulate the development, placing on the market, and use of AI systems, or other AI-related aspects, has revealed intended or inadvertent regulatory gaps that should be addressed.

**Artificial Intelligence diplomacy**

Artificial Intelligence (AI) has become a tool of power politics and an element of state diplomacy. The European Union (EU), however, approaches AI primarily from an economic, social, and regulatory angle. This study discusses the way that AI impacts the European Union’s geopolitical power and its relationship with other countries. It presents possible scenarios for how AI may change the international balance of power and recommends ways for the EU and its Member States to respond.

**The role of Artificial Intelligence in the European Green Deal**

Artificial Intelligence (AI) can be deployed for a wide range of applications to promote the goals of the European Green Deal. However, the adverse environmental impacts of AI could jeopardise the attainment of these goals. The report describes the environmental potential, characteristics and causes of environmental risks and recommends regulatory action to align design and deployment of AI with the goals of the European Green Deal.

**Challenges and limits of an open source approach to Artificial Intelligence**

AI in open source comes with the potential for innovation capacity in both the public and private sector. Advantages include enhanced transparency and facilitation of AI auditing, enhancing citizen trust, while stimulating economic activities and expertise. Disadvantages include legal, technical, data, risk management, societal and ethical challenges. This analysis examines all main open source artificial intelligence pro and cons and proposes seven recommendations to boost its uptake.
Recent Studies on Artificial Intelligence (AI)

Artificial Intelligence market and capital flows
This paper studies the transformation that Artificial Intelligence (AI) is bringing to the financial sector and how this sector can contribute to developments of AI applications. The study addresses the contribution of AI to a more efficient, open, and inclusive financial sector and the challenges of the AI transformation, and it provides recommendations for policies and regulations of AI and financial services.

Improving working conditions using Artificial Intelligence
The analysis considers evidence on the expected impact of Artificial Intelligence (AI) on jobs, discusses the potential of AI to create decent jobs and explores the extent to which AI offers opportunities and poses risks to working conditions. The analysis examines current policies at the European Union (EU) and Member State level and recommends some areas for action at the EU level, including increasing investment in digital education and examining the role of the GDPR in protecting privacy risks.

Artificial Intelligence and public services
Artificial Intelligence (AI) is a key-enabling technology in public services. Its use has increased over the past two years, even if ensuring explainability of public service AI systems can be difficult for black-box algorithms. In public service AI applications, focus is on law enforcement, surveillance and process optimisation. The public sector should lead the way in creating trustworthy AI, using regulatory sandboxing and pre-procurement to create trust in public service AI.

European Union data challenge
Data generated in industrial settings has attracted the attention of policymakers, with GDPR rules remaining of great relevance due to the difficulty of anonymising mixed datasets. However, the planned rules for B2B industrial data sharing also exhibit shortcomings, providing little additional value for B2B data sharing. This briefing recommends soft law to clarify the existing rules, development of model terms and conditions and data standardisation and interoperability support.

Artificial Intelligence in smart cities and urban mobility
Artificial Intelligence (AI) enabling smart urban solutions brings multiple benefits, including increased efficient energy, water and waste management and reduced pollution, noise and traffic congestions. This briefing recommends EU-wide support for infrastructure and governance on digitalisation, the inclusion of urban AI in EU research programs, the harmonisation of AI-related policies in the EU and the adoption of innovative procureme