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INTER-PARLIAMENTARY FRIENDSHIP GROUPS AND INTERNATIONAL INFORMATION GROUPS

SÉNAT

THE OMNIPRESENCE OF ARTIFICIAL INTELLIGENCE IN THE UNITED STATES

Report on the visit by the Inter-parliamentary Friendship Group to Washington, Chicago and New York

26 April to 4 May 2022

A delegation from the France-United States Inter-parliamentary Friendship Group, led by its President, Mr Antoine Lefèvre (Aisne), and comprising Ms Laure Darcos (Essonne), Mr Jérôme Durain (Saône-et-Loire), Mr Fabien Genet (Saône-et-Loire) and Ms Sylvie Vermeillet (Jura), visited Washington, New York and Chicago from 26 April to 4 May 2022.
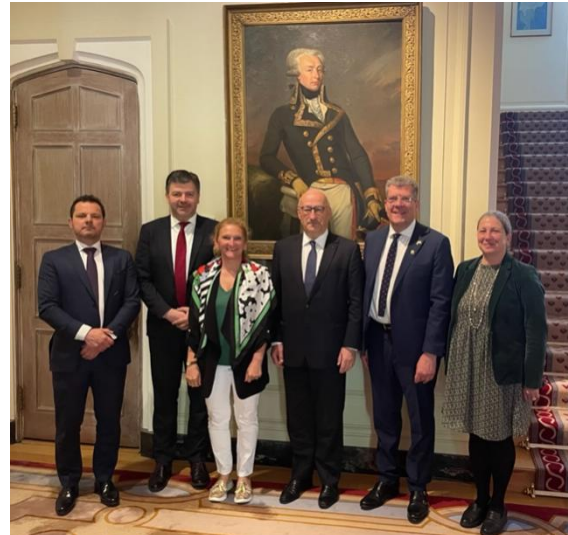
The work of the task force focused mainly on artificial intelligence (AI) in the many areas in which it is employed, whether it be **defence**, **security** and **public law enforcement**, **mobilities**, moderation of **social media**, **agriculture**, **industry** or **health**, but also in more unexpected areas such as **art** and **sport**.

Given this omnipresence of AI in Americans' everyday lives and the delegation's desire to examine the varied aspects of its application, the senators met some **70 interlocutors in the course of about 35 work sessions** organised in Washington, Chicago and in the State of Illinois and then New York, in close cooperation with the French Embassy's Science and Technology Department.

I.- Americans' undeniable ability to seize the opportunities for innovation provided by AI

The initial discussions in Washington enabled the delegation to meet Mr Philippe Étienne, French Ambassador to the United States, Mr Antonin Aviat, Minister Counsellor and Head of the Regional Economic Department in Washington, Mr Stéphane Couderc, tax adviser to the embassy, and some of the 22 staff of the Science and Technology Department. In these work sessions and those that followed, cross-cutting issues surrounding AI were discussed, whether it be the problems of acceptability by the general public or by businesses, or more generally the suspicion

that it can arouse, because the mistrust that can arise concerning understanding of algorithms appears as significant in the United States as in Europe.

The delegation surrounding the French Ambassador beneath the portrait of Lafayette (residence in Washington)

The discussions all showed the decisive nature of the quality of the data collected, on which the effective programming of AI vectors depends, in every field. This is because AI should not be understood as the ability for thinking that is independent of human judgment, but rather as the programming of human decision aid tools, which can only be effective provided that they are fed with unbiased data.

And yet, the issues related to AI are not a matter solely of the collection of data, the quality of which can be constantly improved. The discussions showed that the real challenge is rather the environments related to this data: ensuring its confidentiality, allowing it to be transferred between countries even when their legal ecosystems are very different (for

example, the senators faced numerous questions from their interlocutors regarding the General Data Protection Regulation - GDPR), and promoting its use to ensure security without permitting misuse. All these issues prove decisive in all the fields concerned by the use of AI.

While the issues raised are unanimously agreed on, on the other hand the answers given vary significantly. Admittedly, the discussions showed divergences between the official French and American viewpoints (a cursor giving priority to innovation rather than ex-ante regulations, security taking precedence over privacy), but they were also able to relativise these views, with several US participants ultimately making a commitment in favour of stricter regulation of the use of AI in light of the aforementioned risks, or even ruling out certain aspects of AI: we may mention, in particular, the fact that the use of face recognition, which initially underwent numerous developments, now seems to be declining both in many municipal police forces and in multinational firms such as Meta.

In the numerous discussions the delegation was therefore able to examine the question of the uses of AI from both the academic and institutional perspectives (defence, police, healthcare) and from the economic perspective (GE Health, Motorola, Meta, Northwell Health, start-ups). In particular, the senators were faced with a great diversity of career paths and business models (incubators, university spin-offs, startupper paths), all illustrating how the Americans seize opportunities for innovation.

II.- A very great variety of sectors using AI

Apparently no sector now escapes AI. Although it cannot claim to have achieved an exhaustive assessment in one week, the senatorial task force was able to observe the very wide range of fields covered by AI.

Traditionally, **law enforcement** and more generally **security** constitute the basic sectors in which AI is used. Paradoxically, although this is probably related to this precedence, this is now the sector in which the demand for regulation of AI is strongest. Face recognition is therefore no longer the cornerstone of AI with regard to security. The visit to the police station of the 84th Precinct in the presence of Captain Adeel Rana and Mr Marten-Perolin, liaison officer of the Ministry of the Interior, was therefore an opportunity for discussion of the concrete arrangements available to the police:

a shooting detection technology which can direct cameras immediately towards a gunshot due to the specific nature of the sound is now the preferred choice, whereas cameras carried by the police at this police station do not use face recognition.

The delegation with the officers of the 84th Precinct (northwest Brooklyn, New York City)

Discussions with Craig Chenicek, Head of International Strategy and Product Operations at Motorola Solutions, the leading supplier of telecommunications systems for public security organisations, confirmed that these **alternatives to face recognition were now the preferred choice** in the area of video surveillance, for instance by trying to detect a situation, or certain characteristics, rather than formally identify an individual, partly due to the risks of errors, but also to ensure a minimum of protection of personal freedoms, such as the right to personal privacy.

The discussions pointed to **healthcare** as one of the sectors having the greatest potential for AI-related innovation, especially in the United States, where this is facilitated by relaxed attitudes to relations with health data and by the prospect of significant savings in a system which is very costly for the insured. The meetings, held both in large firms (GE Health, Northwell Health), in the university hospital world (Mount Sinai School of Medicine, Long Island University) and in start-ups, provided an overview of a situation that is at once promising (improved bed occupancy rates, soundness of emergency services, facilitation of emergency responses by civil security services, etc.), but also revealed the limitations of a very individualistic and extremely profit-oriented health insurance system.

Undeniably, the use of increasingly sophisticated image analysis tools as diagnostic aids is a factor of improvement. The various coexisting hospital systems accordingly endeavour to exploit these technologies as well as possible while improving patient diagnosis and avoiding drugs going unused beyond their expiry date. These

promising factors by no means resolve certain flaws of the American healthcare system, in particular the very partial coverage of the very poor, hospitals' relationships with insurers (probably the sector that is the biggest AI "consumer"), or else the issue of healthcare data transfer.

Discussion at the Mount Sinai Tisch Cancer Institute with doctors Tiphaine Martin and Éric Nestler, and with AI legal experts and researchers

For example, the discussion in the Pharmacy Department of Long Island University (LIU) with Arash Dabestani, Dean and Professor on the Brooklyn campus, pinpointed the major difference between the United States and Europe with regard to the procurement of drugs. These differences in the approach to supply chains result in purchasing performed more on a case-by-case basis, whereas Europe buys in bulk.

In Washington, the delegation was also able to obtain explanations from Colonel Christophe Piubeni and Colonel Benjamin Souberbielle regarding the use of AI in the areas of **defence** and **military** cooperation. Replying to a series of questions, notably from Jérôme Durain, the military men dealt with aspects such as war ethics where AI is used for piloting drones, or the environmental consequences of military use of AI. This session included a discussion of the co-belligerence of private US digital service firms in the Russo-Ukrainian war.

Equally striking were the sessions devoted to the use of AI in the **agricultural** sector. The delegation visited EnterpriseWork, a start-up incubator where it was able to talk with Ms Rebecca Motley, Associate Director for Operations, concerning business model and start-up development issues in a university incubator. It also met Mr François Torney, VP-Research of Genective, a start-up specialised in the development of genetically modified corn resistant to insect pests. During this session devoted to AI in the agricultural sector in Illinois, the senators met again with the representatives of the Illinois Farm Bureau, whom they had received in the Senate a few

months earlier, in the course of a visit to the Agricultural and Biological Engineering Farm Research and Training Center (ABE), a connected research farm.

Researchers presented their work in digital agriculture, sustainable development and robotics, always related to AgTech. Among the innovations presented, Mr Girish Chowdhary, director of the Field Robotics Engineering and Sciences Hub, gave a demonstration of smart robots capable of sowing or weeding.

The delegation experiments with a geolocatable combine harvester, capable of producing precise maps of the field's yield, collecting and exchanging information on the harvest in order to optimally adapt the measures to be taken

Before a trial on site, the delegation sees a presentation of the smart robots

Professor Steve Moose presented the CROPPS (Center for Research on Programmable Plant Systems), which conducts **research combining artificial intelligence and genetic engineering to develop sentinel plants** capable of providing information in real time on the condition of the field being worked.

Together with Mr Yannick Tagand, Consul General in Chicago, the senators also visited the Argonne laboratory. Guided by Mr Aymeric Rousseau, head of the **Vehicles and Mobility** System Section, the delegation discovered one of the largest laboratories in the country. Apart from its size and its very large budget, the

laboratory has the IBM Blue Gene/P, the **first supercomputer with computing power exceeding one petaflop**.

The delegation on its arrival at the Argonne laboratory.

In New York, the delegation had a discussion with **Mr Yann Le Cun, head of the scientific division at Meta** (ex-Facebook). Regarded as one of the greatest artificial intelligence specialists in the world, founding director of Facebook's FAIR artificial intelligence laboratory, in the long interview granted to the delegation he showed great realism regarding the potential drawbacks of AI.

He philosophically defended the backtracking by Meta, which does not wish to take its research further in the area of face recognition, and described the spectacular progress in the area of content moderation on social media, now in nearly all the languages in the world, made possible by AI.

During this extremely instructive interview, Mr Le Cun mentioned his work in collaboration with several French entities, and in particular with one of the four French AI institutes, PRAIRIE (PaRis AI Research InstitutE).

He specified the areas of research which seemed to him most promising with regard to AI applications. There followed a long discussion on *transformers*. These are very sophisticated mechanisms for learning by computers which use "attention mechanisms" to perform tasks for which they have not been programmed. A computer model can, for example, master a new language system without having been taught it directly. This very sophisticated form of AI sometimes gives rise to misinterpretations, and the researcher therefore seized the opportunity to specify, in particular following a discussion with Fabien Genet, that the machines in no case became "autonomous".

The second extremely promising area of research in AI, in his opinion, relies on **self-supervised learning**. This involves "training" a computer model to predict and identify data that is partly concealed from it, enabling it to "progress".

The discussion also concerned the issues of computing power, the Jean Zay supercomputer in France and ecological issues regarding social media.

The senators following their interview with Mr Yann Le Cun (Meta)

The New York session also provided an opportunity, together with Mr Frédéric Rossi, Head of Business France in North America, to meet numerous French CEOs established in New York who have founded businesses using AI. Although we cannot be exhaustive, we should mention at least the sessions with Messrs Alexandre Winter (Norbert Health), Franck Giaoui (Optimalex), Emmanuel Dumont (Shade) and Jerôme Pesenti (Meta).

The delegation in the presence of French CEOs established in New York and using AI

III.- A trip that also featured political discussions and a rich cultural and academic agenda

In parallel to their rich programme devoted to artificial intelligence, the senators conducted discussions of a more political nature. The serious international situation was naturally a major subject of these discussions.

Surrounding senator John Boozman

In Congress, two discussions, one with **John Boozman, senator from Arkansas**, co-president of the Congressional French Caucus for the Senate, and the other with **Joe Wilson, South Carolina representative**, co-chairman of the Congressional French Caucus for the House of Representatives, made it possible to address the Franco-American bilateral relationship and relations with France and Europe more generally, in a very frank manner.

The role of NATO and the European Union's Common Security and Defence Policy (CSDP) were also discussed.

During these discussions, Mr Antoine Lefèvre came back in particular to a subject that he follows very closely as president of the Inter-parliamentary Friendship Group: the numerous problems faced by **"accidental Americans"** and the compelling need to resolve a situation that has persisted for eight years. Ms Sylvie Vermeillet, for her part, questioned her interlocutors regarding the **events that took place in the Capitol on 6 January 2021**.

The delegation, accompanied by the French Ambassador, meets representative Joe Wilson

The senators also visited the campus of Columbia University. In the presence of Mr Emmanuel Kattan, Director of the Alliance programme, and two researchers in AI and data privacy in the university's Department of Computer Science, assistant professor Mr Augustin Chaintreau, and PhD student Ms Mia Chiquier, the delegation discussed, *inter alia*, the subject of data privacy protection, especially to combat **abuse by groups collecting users' data without their knowledge**.

More generally, this session was an opportunity for Ms Laure Darcos, as senator of the Essonne department where Paris-Saclay University, the best ranked French university in the Shanghai Classification, is located, to examine the issue of the **funding of American universities** and to discuss academic excellence.

On the campus of Columbia University

Lastly, in New York the delegation was able to have a discussion with Mr Gaëtan Bruel, Cultural Adviser to the Embassy and Director of **Villa Albertine**. Following Rome, Madrid and Tokyo, this is the fourth French "Villa" opened abroad, although on a different model, because it was chosen to use numerous locations. New York is therefore one of the ten branches of the Villa, together with Atlanta, Boston, Chicago, Houston, Los Angeles, Miami, New Orleans, San Francisco and Washington.

80 residents, covering 15 disciplines, have already been honoured by the Villa. The model allows French cultural services in the United States to reach a broader American public, by going to it rather than waiting for it to come to a single location which could seem relatively inward-looking. On this occasion, the senators asserted the need for increased cooperation between the cultural services of the French Embassies, the Instituts Français and Alliances Françaises throughout the world.

Together with Mr Vincent Montagne, chairman of the French National Publishers' Association, they then took part in the **award ceremony for the first Prix Goncourt US**, awarded to *La Carte postale* by Anne Berest, at a ceremony chaired by the writer Siri Hustvedt.

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Against the backdrop of a **warming of the bilateral relationship** following the submarine fiasco, the delegation's trip was also an opportunity to prepare the organisation in the Senate, in conjunction with Business France, of an economic conference on 15 June 2022, entitled *"S'implanter aux Etats-Unis" ("Setting up in business in the United States")*.

Members of the delegation
Mr Antoine LEFÈVRE President of the Group Senator for the Aisne (Les Républicains)

Ms Laure DARCOS Vice-President of the Group Senator for the Essonne (Les Républicains)	**Ms Sylvie VERMEILLET** Vice-President of the Group Senator for the Jura (Union centriste)	**Mr Jérôme DURAIN** Secretary of the Group Senator for the Saône-et-Loire (SER)	**Mr Fabien GENET** Secretary of the Group Senator for the Saône-et-Loire (Les Républicains)

Members of the delegation: http://www.senat.fr/groupe-interparlementaire-amitie/ami_590.html