

PANEL FOR THE FUTURE OF SCIENCE AND TECHNOLOGY (STOA) CENTER FOR ARTIFICIAL INTELLIGENCE (C4AI)

This is a repository of publications and online resources prepared by the Panel for the Future of Science and Technology (STOA) and other services of the European Parliamentary Research Service (EPRS).

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STOA - Panel for the Future of Science and Technology

C4AI - Center for Artificial Intelligence

EPRS - European Parliamentary Research Service

ESMH - European Science-Media Hub

EAVA - European Added Value Assessment Unit

MRS - Members' Research Service

IMPA - Ex-Ante Impact Assessment Unit

TREN - Global Trends Unit

ESPAS - European Strategy and Policy Analysis System

| Publications

Digital transformation - Cost of Non-Europe | [EAVA Study, January 2022](#)

AI in healthcare: Applications, risks, ethical and societal impacts | [ESMH article, January 2022](#)

Key enabling technologies for Europe's technological sovereignty | [STOA Study, December 2021](#)

Person identification, human rights and ethical principles: Rethinking biometrics in the era of artificial intelligence | [STOA Study, December 2021](#)

The AI Act | [MRS Briefing, November 2021](#)

The future of AI for healthcare: AI can make a huge difference | [ESMH article, November 2021](#)

AI in agriculture: benefits and challenges ahead | [ESMH article, September 2021](#)

EU health data centre and a common data strategy for public health | [STOA Study, September 2021](#)

Innovative technologies shaping the 2040 battlefield | [STOA Study, August 2021](#)

Artificial or Artistic Intelligence? | [ESMH article, August 2021](#)

Tackling deepfakes in European policy | [STOA Study, July 2021](#)

The AI-cyber nexus: mending defences, recasting threats | [ESMH article, August 2021](#)

Initial Appraisal of a European Commission Impact Assessment of the Artificial Intelligence Act | [IMPA Study, July 2021](#)

What if we chose new metaphors for artificial intelligence? | [STOA At a glance, June 2021](#)

European Data Governance Act | [MRS Briefing, June 2021](#)

Prof. Wayne Koff : AI can help us design better, safer and faster vaccines | [ESMH interview, March 2021](#)

Rethinking education in the digital age | [STOA Study, April 2021](#)



Digital automation and the future of work | [STOA Study, January 2021](#)

Artificial Intelligence In Road Transport: Cost Of Non-Europe Report | [EAVA Study, January 2021](#)

What if AI took care of traffic as well as driving? | [STOA At a glance, December 2020](#)

What if blockchain could guarantee ethical AI? | [STOA At a glance, December 2020](#)

What if AI could improve thermal imaging, to help fight coronavirus? | [STOA At a glance, December 2020](#)

What if artificial intelligence in medical imaging could accelerate Covid-19 treatment? | [STOA At a glance, December 2020](#)

What if AI-powered passenger locator forms could help stop the spread of Covid-19? | [STOA At a glance, December 2020](#)

What if AI could help us become 'greener'? (+Podcast) | [STOA At a glance, November 2020](#)

European framework on ethical aspects of artificial intelligence, robotics and related technologies | [EAVA Study, September 2020](#)

Civil liability regime for artificial intelligence | [EAVA Study, September 2020](#)

AI in journalism : with power come responsibilities | [ESMH article, September 2020](#)

Artificial intelligence: How does it work, why does it matter, and what can we do about it? | [STOA Study, June 2020](#)

The impact of the General Data Protection Regulation (GDPR) on artificial intelligence | [STOA Study, June 2020](#)

Artificial intelligence: From ethics to policy | [STOA Study, June 2020](#)

What if AI could advance the science surrounding dementia? (+Podcast) | [STOA At a glance, June 2020](#)

The ethics of artificial intelligence: Issues and initiatives | [STOA Study, March 2020](#)

What if we could fight coronavirus with artificial intelligence? (+Podcast) | [STOA At a glance, March 2020](#)

What if artificial intelligence made work obsolete? (+Podcast) | [STOA At a glance, March 2020](#)

Is data the new oil? Competition issues in the digital economy (+Podcast) | [MRS Briefing, January 2020](#)

Deepfakes, shallowfakes and speech synthesis: tackling audiovisual manipulation | [ESMH article, December 2019](#)

EU guidelines on ethics in artificial intelligence: Context and implementation | [MRS Briefing, September 2019](#)

Economic impacts of artificial intelligence (+Podcast) | [MRS Briefing, July 2019](#)

Cost of non-Europe in robotics and artificial intelligence | [EAVA Study, June 2019](#)

Artificial intelligence, data protection and elections (+Video) | [MRS At a glance, May 2019](#)

A governance framework for algorithmic accountability and transparency | [STOA Study, April 2019](#)

Trends in Artificial Intelligence and Big Data | [TREN, ESPAS Ideas Paper, 2019](#)

Automated tackling of disinformation-Major challenges ahead | [STOA Study,](#)

March 2019

Artificial intelligence in transport: Current and future developments, opportunities and challenges (+Video) | [MRS Briefing, March 2019](#)

Artificial Intelligence ante portas: Legal & ethical reflections | [STOA Briefing, March 2019](#)

How artificial intelligence works | [STOA Briefing, March 2019](#)

Why artificial intelligence matters | [STOA Briefing, March 2019](#)

Regulating disinformation with artificial intelligence | [STOA Study, March 2019](#)

Polarisation and the use of technology in political campaigns and communication | [STOA Study, March 2019](#)

Understanding algorithmic decision-making: Opportunities and challenges | [STOA Study, March 2019](#)

What if algorithms could abide by ethical principles? (+Podcast) | [STOA At a glance, November 2018](#)

Computational propaganda techniques (+Video) | [MRS Briefing, October 2018](#)

What if technologies had their own ethical standards? (+Podcast) | [STOA At a glance, September 2018](#)

Democracy in the Age of Artificial Intelligence | [TREN Study, July 2018](#)

Should we fear artificial intelligence? | [STOA In-Depth Analysis, March 2018](#)

A common EU approach to liability rules and insurance for connected and autonomous vehicles (+Video) | [EAVA Study, February 2018](#)

Understanding artificial intelligence (+Podcast) | [MRS Briefing, January 2018](#)

Ethical Aspects of Cyber-Physical Systems | [STOA Study, June 2016](#)



| STOA Blog posts

STOA-OECD series of podcasts on artificial intelligence | [August 2021](#)

New STOA study on deepfakes and European policy | [July 2021](#)

AI in journalism: with power come responsibilities | [September 2020](#)

Mapping the AI ethics initiatives terrain | [July 2020](#)

Artificial intelligence is revolutionising our future: opportunities and challenges | [July 2020](#)

GDPR and AI: making sense of a complex relationship | [July 2020](#)

Artificial intelligence: From ethics to policy | [June 2020](#)

New STOA study on artificial intelligence: How does it work | why does it matter and what can we do about it? | [June 2020](#)

What if AI could advance the science surrounding dementia? | [June 2020](#)

What if we could fight coronavirus with artificial intelligence? (+Podcast) | [March 2020](#)

What if artificial intelligence made work obsolete? | [March 2020](#)

Artificial intelligence made in Europe | [February 2020](#)

Deepfakes, shallowfakes and speech synthesis: tackling audiovisual manipulation | [December 2019](#)

#Tekoälyaika - Finland's 1% AI education strategy | [June 2019](#)

Artificial intelligence | machine learning & automation: what future for journalism? | [June 2019](#)

AI could boost journalism with smart tools | [June 2019](#)

Is Algorithmic Transparency And Accountability Necessary And/Or Feasible? | [May 2019](#)

The challenges of regulating disinformation with artificial intelligence | [May 2019](#)

Does artificial intelligence threaten human rights? | [April 2019](#)

The promise and limitations of technological solutions to disinformation | [March 2019](#)

Is artificial intelligence a human rights issue? | [March 2019](#)

Towards a democratically upgraded artificial intelligence | [March 2019](#)

Autonomous cars: will roads be safer if algorithms replace human drivers? | [February 2019](#)

Debate on “killer robots”: the crucial role of human control | [January 2019](#)

New collection asks if we should fear artificial intelligence | [April 2018](#)

How should we manage media in the age of artificial intelligence? | [December 2017](#)

STOA Annual Lecture 2017: Media in the age of artificial intelligence | [November 2017](#)

Is it rational to be optimistic about artificial intelligence? | [October 2017](#)

Will artificial intelligence really improve our lives? | [October 2017](#)



| Events

The Athens Roundtable on Artificial Intelligence and the Rule of Law | [STOA online event, 6-7 December 2021](#)

Edge computing, 6G and satellite communications | [STOA Annual Lecture, 1 December 2021](#)

Sustainable finance: How AI can help account for climate risks | [Workshop, 9 November 2021](#)

How will Artificial Intelligence change humanity? Exploring the social and political implications of our digital futures | [EPRS Policy Roundtable, 29 September 2021](#)

Governing online platforms: Policy options for shaping a principled digital future | [STOA Workshop, 30 March 2021](#)

Policy options for the ethical governance of disruptive technologies | [STOA Workshop, 23 March 2021](#)

Use of AI, big data and space technologies in terrestrial management | [STOA Workshop, 23 February 2021](#)

Digital human rights and the future of democracy: Lessons from the pandemic | STOA Annual lecture, 9 December 2020

Artificial Intelligence and the Rule of Law | The Athens Roundtable, 16 November 2020

The future of artificial intelligence for Europe | STOA Workshop, 29 January 2020

AI and journalism | ESMH Summer school, 4-7 June 2019

Virality and influencers in digital communication | ESMH Workshop, 3 April 2019

Is artificial intelligence a human rights issue? | STOA Workshop, 20 March 2019

Artificial Intelligence for early diagnosis and treatment | STOA Workshop, 7 February 2019

Quantum technologies, artificial intelligence, cybersecurity: Catching up with the future | STOA Annual lecture, 4 December 2018

How to win Elections: Reflections on the use and misuse of technology in electoral campaigns | STOA Workshop, 7 November 2018

Media in the age of artificial intelligence | STOA Annual Lecture, 21 November 2017

Should we fear the future? Is it rational to be optimistic about artificial intelligence? | STOA Workshop, 19 October 2017



| Audiovisual

Taxing the digital economy: New developments and the way forward | EPRS, November 2021

What if deepfakes made us doubt everything we see and hear? | STOA, September 2021

STOA-OECD series of podcasts on artificial intelligence | August 2021

Can we protect society from the deepfake menace? | STOA, June 2021

The cost of non-Europe in artificial intelligence in road transport | EAVA, March 2021

3 key questions on autonomous vehicles | EPRS, February 2020

STOA is joining with the OECD to shape the future of Artificial intelligence | STOA, December 2020

Artificial intelligence in Europe | STOA, January 2020

Does artificial intelligence threaten human rights? | STOA, December 2019

Do we need an ethical charter or European agency for AI? | STOA, November 2019



| E-books

Selection of online academic articles and e-books in the EP Library collection:

Artificial Intelligence and Ethics

Artificial Intelligence and Law

Applications of Artificial Intelligence

EPRS | European Parliamentary Research Service | Scientific Foresight Unit (STOA)

Centre for Artificial Intelligence (C4AI)

<https://www.europarl.europa.eu/stoa/en/centre-for-ai>