STOA
Panel for the Future of Science and Technology

STOA Panel meeting
Thursday, 19 December 2019, 09:30 – 11:00
Room WEISS N1.4, Strasbourg

Draft Minutes

– The meeting started at 09:37 with Eva KAILI, MEP and STOA Chair, in the chair.

1. Adoption of the draft agenda (PE 641.512)

– The Chair informed Members that interpretation was available in English, French, German, Bulgarian, Dutch, Italian, Portuguese, and Spanish, and that the meeting was being web-streamed.

– She then announced that the draft agenda was in the dossier and asked Members if they agreed that the following item be added: '5a. STOA workshops and joint activities with external organisations. 5a.1. Event on 'The future of AI for Europe' (title t.b.c.), 29 January 2020, EP, Brussels'.

– The Chair also informed Members that, for reasons related to the availability of speakers, the presentations (formerly agenda item 7) would follow immediately after the approval of the draft minutes.

– The agenda was then adopted as modified.

2. Approval of draft minutes – STOA Panel meeting of 28 November 2019

– The Chair announced that the draft minutes of the Panel meeting of 28 November 2019 were in the dossier and, as there were no requests for changes, they were deemed approved (as in the file).

3. Presentations (delivered remotely) of the outcomes of the Technology Assessment studies 'How the GDPR[1] changes the rules for scientific research' and 'Blockchain and the GDPR'

– The Chair welcomed, introduced and gave the floor (via Skype) to Michèle FINCK, from the Max Planck Institute for Innovation and Competition, Munich, and the University of Oxford, one of the authors of the study on GDPR and blockchain.

– The speaker started by sketching the background of the discussions at the intersection between GDPR and blockchain. She noted that, from a regulatory perspective, the issue discussed most in the EU context is the compatibility or not of blockchain with GDPR legislation. She explained that the study tried to map comprehensively the GDPR and blockchain tensions and benefits. One key insight highlighted by the speaker was that the compatibility of blockchain with the GDPR could only be assessed on a case-by-case basis.

– Ms FINCK selected three representative tensions and benefits to illustrate as examples. The first one was 'Mutability vs immutability': Article 16 of the GDPR said that it must be possible to change personal data, for example when it was inaccurate, and Article 17 allowed data to be erased (the right to be forgotten). Whether these articles could actually be complied with in the context of blockchain was largely a question of interpretation and, in fact, there was a lack of coherence among data protection authorities concerning, for example, the definition of 'erasure'. The second tension highlighted by the speaker was 'Accountability in decentralised systems': With time, the notion of data controllership and joint controllership had been interpreted very broadly, making it very hard to identify which entity or party was actually in charge of complying with the GDPR. The third tension was 'Data minimisation': Article 5 of the GDPR required that personal data to be processed should be adequate, relevant and necessary for the purposes of which it was processed and many had raised the question of whether it could be justified to use blockchain technology, compared to other technologies, to process personal data – because data was usually not removed from blockchains, which stored entire copies of databases on different computers contrary to data minimisation.

[1] General Data Protection Regulation (EU) 2016/679

- The speaker then discussed potential benefits of blockchain in the GDPR context: accountability (tracking who accessed what data at what time), compliance with GDPR Article 24 (tracking what is being done with personal data), and, thirdly, that blockchain could also serve as a tool for increased data sharing (for example allow companies to share data and improve machine learning models or artificial intelligence development).
- The speaker mentioned the three policy options suggested by the study, which were: adopting regulatory guidance, supporting codes of conduct and certification mechanisms, and supporting research funding on the intersection between GDPR and blockchains, particularly on the design of compliance systems.
- The Chair then thanked Ms FINCK and opened the floor for comments and questions.
- Petra DE SUTTER, MEP and Panel member, asked whether the speaker preferred having compliance built into blockchain development and applications, or whether the GDPR should revised. She also questioned whether blockchain was making data anonymisation easier or more difficult when applied for data sharing.
- Ivars IJABS, MEP and STOA Second Vice-Chair, asked about the use of blockchain in electronic elections.
- Michèle RIVASI, MEP and Panel member, asked for some precise examples as to where the real problems would arise regarding data protection with blockchain.
- The speaker responded to the questions by indicating the value to be gained from research in compliance by design overall, and that the outcome of the study was that there was no strong case for reviewing the GDPR and regulatory guidance would be more useful than a revision. She did not think blockchain made it easier to anonymise data. In relation to e-voting, the speaker noted that she understood that the general consensus seemed to be that using blockchains would be a bad idea, as they would not offer the safeguards needed. She finally indicated that the study request did not cover the question proposed by Ms RIVASI and emphasised again that a case-by-case analysis was really necessary to assess blockchain and GDPR compliance.
- The Chair then welcomed, introduced and gave the floor (via Skype) to Effy VAYENA, Professor of Bioethics at the Swiss Institute of Technology (ETH) Zurich, for the presentation of the second study, on 'How the GDPR changes the rules for scientific research'.
- The speaker explained that the GDPR was perceived in relation scientific research in two ways: pessimistic (as an obstacle, for example, to international collaboration) and optimistic. She then highlighted the four questions addressed in the study: What were the new rights and obligations under the GDPR that might impact scientific (particularly biomedical) research? What measures were research institutions implementing to prepare for or cope with GDPR requirements? What were the media-driven public perceptions concerning the GDPR in relation to scientific research? What options were available for the scientific community to find common ground with new legal rules on data protection, and how could it prepare for GDPR compliance?
- The speaker then presented their findings on possible negative impacts the GDPR could have on scientific research, including concerns over: whether some of the new rights and obligations introduced by the GDPR, including the right to be forgotten and the right to data portability, might conflict with scientific research; scientific research exceptions pursuant to Article 89(1)'s positive obligations; additional administrative burden; cross-border data transfer outside the EU; divergent requirements for obtaining consent for further uses; divergent definitions of anonymisation; and the definition of personal data and genetic data.
- Moving on to potential positive impacts, the speaker highlighted the following: ensuring greater regulatory certainty and flexibility for scientific research; promoting trust in data donation and sharing for scientific purposes among citizens; empowering data subjects with increased control over their data; facilitating cross-national data sharing within the EU; minimising data breaches and abuses, and associated harms.
- The speaker finally presented three categories of policy options: regulatory (reconciliation of the requirements for specific informed consent and broad consent; clarification with respect to processing for statistical purposes; standards for data anonymisation; clarity between data subject rights and GDPR), procedural (data management practices; data governance frameworks; technical standards for anonymisation; software tools to allow data compliance by researchers) and capacity-building options (increasing understanding of the GDPR by researchers and scientists; monitoring attitudes and tailoring data protection literacy interventions).

- The speaker closed her presentation by emphasising that the study authors believed that the GDPR was not an obstacle to scientific research, but needed some refinement to iron out some uncertainties and provide clarity to promote innovation while respecting data protection rights.
- The Chair then thanked Ms VAYENA and opened the floor for comments and questions.
- Ms DE SUTTER asked whether it would probably never be possible to anonymise genomic data and, hence, where one was in terms of informed consent in data sharing and doing research on this kind of data.
- Ms VAYENA agreed that it was very hard to say with confidence that genomic data could be anonymised – there were currently various modes, e.g. explicitly requesting consent for a particular study, but there was a move towards broad consent, allowing multiple uses of the data for studies that the individual might not know in advance. One could do better ethically if on the research side there were additional questions, e.g. about the purpose of the research, the benefit, and how the benefit would be distributed. Countries were approaching it differently but seemed to be moving towards an agreement, although there was no perfect solution.
- Mr IJABS asked about the costs incurred by the GDPR for different institutions; the universities used in the study were the best in their respective countries, and thus had more financial resources; but how did the GDPR affect less wealthy institutions? He also asked whether the researchers considered the GDPR an obstacle.
- The speaker replied by indicating the time constraints for the study that that did not allow them to explore other universities that were less well equipped to handle the GDPR. They had considered sending out a survey, but thought the universities might not respond. A survey might, however, be possible in the future.
- Yana TOOM, MEP and Panel member, noted that, after the GDPR, hundreds of media outlets had left the EU as they could no longer comply, and asked about international cooperation and whether there were any other than political solutions.
- Ms VAYENA replied that these types of concerns were not insurmountable and that, with a high level of data protection, one could create trust in the public about how data was dealt with, it was possible to resolve with contractual agreements, e.g. between US and EU research institutions, issues that could be ironed out within the remit of the GDPR, and Europe still remained as a very attractive partner in research.
- The Chair noted that Nobel Prize winners she had met often asked for more high-quality data, and asked the speaker if the GDPR could improve the situation, e.g. by establishing a European area where data could be exchanged while protecting privacy. She also asked if the GDPR could be used to target people that misused data or used it against others, if a different approach was required or if one should stick to the current rules.
- The speaker confirmed that common standards for quality and accuracy were still missing and the GDPR could make it possible to have better data sharing in Europe. She also noted that incentives were missing for sharing; if Europe could develop regulatory or cultural approaches that made scientists more confident and incentivised them to share, that would be beneficial for research and it was feasible within the GDPR frame.
- The Chair asked for any further examples of concerns over the misuse of data.
- The speaker provided an example of a facial recognition study aiming to understand whether someone was gay or straight; one failed to see the objective of this research, which went against European values.
- Ms RIVASI noted that, in the health industry for example, transparency was key for clinical trials when data had to be shared, and expressed concern over how industry might highjack data for its own private use.
- The speaker confirmed that transparency was indeed important, but it could not be up to the individual to check how data was used; there was a need for organisations to be accountable and to have intermediate bodies to check on them, as, while transparency was important, it was not sufficient to protect individuals.
- Ms TOOM asked whether the Universal Declaration of Human Rights needed to be revised in the digital era.
- The speaker argued that, although the human rights declaration as an instrument was young, it had been derived from other agreements and existed in some form of another before. She agreed that there were ongoing discussions on whether these rights, for example the right to privacy, could be respected and protected in the current climate and whether artificial intelligence could help to protect these rights, but she felt that they were still valid and she would be reluctant to start from scratch and create new ones.

4. STOA priorities for the 9th parliamentary term – Continuation of the discussion

– The Chair announced that the discussion on priorities would be postponed to January.

5. Ongoing and new STOA projects

5.1. Proposals for a STOA workshop and study on health and environmental impacts of 5G

– The Chair reported that Ivo HRISTOV, MEP and Panel member, and Ms RIVASI had proposed the study and workshop based on their concerns that not enough research was available to answer such questions on 5G. The STOA Bureau had examined the proposals and was recommending their approval as a STOA project.

– The Chair explained that the ESMH[2] was exploring options for producing via a service contract a visual product (e.g. interactive infographic or knowledge map) to complement the information on different aspects of 5G to be obtained through the STOA project with an informative tool accessible to a general audience.

– The proposal was approved as a STOA project, including a possible visual tool.

6. STOA Annual Lecture 2020

– The Chair referred to a note from the Secretariat listing various options and commented that the implications of new technologies and the surrounding social debate created the need for a lecture on this topic. Speakers and agenda should be agreed by January, so that the lecture could be held within the first 100 days of 2020.

– Patrizia TOIA, MEP and Panel member, commented, in reference to the proposed list of options, that her preference would be option No. 1 (technology, entrepreneurship, digitalisation and the associated societal debate), but that option No. 3 (nanomedicine) should also be emphasised for highlighting the importance of fundamental science as a driver of innovation. In her view, options No. 1 and 3 should be combined.

– Ms DE SUTTER commented that she intended to make the same suggestion as Ms TOIA, and that she would be in favour of exploring nanomedicine as an example of a new development that could have societal impact.

– Lina GÁLVEZ MUÑOZ, MEP and Panel member, stressed the importance of nanotechnology and referred to a recently published book ('Nano comes to life: How nanotechnology is transforming medicine and the future of biology') by Professor Sonia CONTERA, University of Oxford, and proposed the author as speaker.

– The Chair responded by proposing to have the Annual Lecture on option No. 1 (technology and society) and have a separate event on nanotechnology, possibly included in the Science Week at the European Parliament, which, with the Panel's approval, could take place in June 2020.

– Ms RIVASI commented that she would rather have the two events held separately, so that the respective topics could be looked at in depth.

– Maria LEITÃO MARQUES, MEP and Panel member, asked for a timetable of forthcoming STOA events.

– The Chair responded by saying that a better view of what was in the pipeline for 2020 would be possible once proposals had been received from Panel members, but a calendar could already be provided in January.

– Francesca DONATO, MEP and Panel member, endorsed the idea of the Annual Lecture focussing on option No. 1 and a separate event addressing nanotechnologies, as it was a major issue and deserved sufficient time.

– The Chair concluded that the Annual Lecture would focus on emerging technologies, especially artificial intelligence, and their associated societal impact and challenges. She added that a separate event on nanomedicine and other health aspects would be planned.

7. STOA workshops and joint activities with external organisations

7.1. Event on 'The future of AI[3] for Europe' (title t.b.c.), 29 January 2020, EP, Brussels

– The Chair requested, with the support of the STOA Bureau, the Panel's endorsement for organising a STOA event on 'The future of AI for Europe' (title t.b.c.), on 29 January 2020, 18:00 to 20:00, at the European Parliament in Brussels (Room ASP 3G3). The event would take place with the participation of Commission Vice-President Margrethe VESTAGER, responsible for a Europe Fit for the Digital Age. It would begin with

[2] European Science-Media Hub
[3] Artificial intelligence

a keynote speech delivered by Ms VESTAGER, followed by Q&A and a discussion with Members. The Chair invited Panel members to submit questions for the discussion.

– As there were no objections, the event was deemed accepted as a STOA event.

8. Update on ESMH activities

8.1. Renewal of the mandate of the ESMH Interinstitutional Advisory Board

– The Chair announced that, as there were no objections, the mandate of the ESMH Interinstitutional Advisory Board would be renewed for the new parliamentary term.

8.2. Creation of an AI Platform within the ESMH

– The Chair remarked that the STOA Bureau was considering creating an AI platform, with a view to organising a series of events in 2020.

– Ms MUÑOZ asked whether this was specific to AI, or would cover disruptive technologies in general, and additionally requested if a calendar of events and studies could be provided for 2020.

– The Chair confirmed that this information would be distributed.

– As there were no objections, she also announced that the Panel was giving a mandate to the STOA Bureau to set up an 'AI Forum' within STOA/ESMH, as described.

9. Any other business

– The Chair confirmed that an invitation would be sent to Members for the event 'The future of AI for Europe'.

10. Date of next meeting: Thursday, 16 January 2020, 09:30 – 11:00, Room WEISS N1.4

– The Chair announced that the next meeting would take place on Thursday, 16 January 2020, 09:30 - 11:00, in the same room (WEISS N1.4).

– This meeting would feature a presentation of the outcomes of the Technology Assessment study 'Blockchain for supply chains and international trade'

– The meeting ended at 11:03.

ANNEX
List of participants

STOA Panel members

Ms Kaili, Mr Ijabs, Ms Bunting, Ms De Sutter, Ms Donato, Ms Galvez Muñoz, Mr Hristov, Mr Kaljurand, Ms Leitão Marques, Mr Radtke, Ms Rivasi, Ms Solís Pérez, Mr Thaler, Ms Toia, Ms Toom, Mr Wölken.

Scientific Foresight Unit (STOA)

Mr Pataki, Ms Van Woensel, Ms Tanova-Encke, Ms Manirambona.

Other participants

Mr Hiller (Director EPRS), Ms Garlinksa (Assistant to Ms Bunting), Ms Benini (Assistant to Ms Donato), Ms Garcia Carrera (Assistant to Ms Gálvez Muñoz), Ms Ivanova (Assistant to Mr Hristov), Mr Belaud (Assistant to Mr Karleskind), Mr Nogueira Leite (Assistant to Leitão Marques), Ms Fusco (Assistant to Ms Solís Pérez), Mr Muigg (Assistant to Ms Thaler), Mr Fusco (Assistant to Ms Toia), Ms Hadviger (Assistant to Mr Wölken), Mr Montgomery (Strasbourg University), Mr Matlosz (EuroScience), Mr Girod (EuroScience).