



2018/2088(INI)

7.12.2018

AMENDMENTS

1 - 330

Draft report

Ashley Fox

(PE630.525v01-00)

A comprehensive European industrial policy on artificial intelligence and robotics

(2018/2088(INI))

Amendment 1

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Citation 1 a (new)

Motion for a resolution

Amendment

- *having regard to the European Commission proposal establishing the Digital Europe programme for the period 2021-2027 published on June 6th 2018;*

Or. en

Amendment 2

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution

Citation 1 a (new)

Motion for a resolution

Amendment

- *having regard to the European Parliament resolution of 1 June 2017 on digitising European industry(2016/2271(INI));*

Or. en

Amendment 3

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Citation 1 b (new)

Motion for a resolution

Amendment

- *having regard to the Council Regulation 2018/1488 of 28 September 2018 establishing the European High Performance Computing Joint Undertaking;*

Amendment 4

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Citation 1 b (new)

Motion for a resolution

Amendment

- *having regard to the European Parliament resolution of 11 September 2018 on language equality in the digital age(2018/2028(INI)),*

Or. en

Amendment 5

Dario Tamburrano

Motion for a resolution

Citation 2 a (new)

Motion for a resolution

Amendment

- *having regard to its resolution of 16 February 2017 with recommendations to the Commission on Civil Law Rules on Robotics;*

Or. en

Amendment 6

Dario Tamburrano

Motion for a resolution

Citation 2 b (new)

Motion for a resolution

Amendment

- *having regard to its resolution of 12 September 2018 on autonomous weapon systems;*

Amendment 7
Dario Tamburrano

Motion for a resolution
Recital A

Motion for a resolution

A. whereas artificial intelligence (AI) and robotics have the potential to enrich our lives and further our capabilities;

Amendment

A. whereas artificial intelligence (AI) and robotics have the potential to enrich our lives and further our capabilities, ***both as individuals and for the common good***;

Or. en

Amendment 8
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Recital A

Motion for a resolution

A. whereas artificial intelligence (AI) and robotics have the potential to enrich our lives and further our capabilities;

Amendment

A. whereas ***ethics embedded*** artificial intelligence (AI) and robotics have the potential to enrich our lives and further our capabilities;

Or. en

Amendment 9
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Recital A a (new)

Motion for a resolution

Amendment

Aa. whereas on 25 April 2018 the Commission committed to propose a European approach by developing draft

Artificial Intelligence guidelines in cooperation with stakeholders within the AI alliance, a group of artificial intelligence experts, in order to boost AI-powered applications and businesses in Europe;

Or. en

Amendment 10

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Recital A b (new)

Motion for a resolution

Amendment

Ab. whereas a coordinated approach at European level is urgently needed to be able to compete against the massive investments made by third countries especially the US and China;

Or. en

Amendment 11

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Recital B

Motion for a resolution

Amendment

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies; *whereas the availability of large-scale data sets and testing and experimentation facilities are of major importance for the development of artificial intelligence;*

Or. en

Amendment 12
Patrizia Toia

Motion for a resolution
Recital B

Motion for a resolution

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

Amendment

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies *in production as well as making European industry and SMEs more competitive globally*;

Or. it

Amendment 13
Neoklis Sylikiotis

Motion for a resolution
Recital B

Motion for a resolution

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

Amendment

B. whereas *transparent and ethics embedded* AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

Or. en

Amendment 14
Eva Kaili

Motion for a resolution
Recital B

Motion for a resolution

B. whereas AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

Amendment

B. whereas *transparent and ethics embedded* AI and robotics have the potential to reshape multiple industries and lead to greater efficiencies;

Or. en

Amendment 15

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Recital B a (new)

Motion for a resolution

Amendment

Ba. whereas the Union computing performance needed to be maintained at a leading level, the Union should provide an opportunity for its supply industry and increase its effectiveness in turning the technology developments into demand-oriented and application-driven leading to their uptake in large-scale and emerging application underpinned by artificial intelligence;

Or. en

Amendment 16

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution

Recital B a (new)

Motion for a resolution

Amendment

Ba. whereas artificial intelligence is one of the strategic technologies for the 21st century both globally and in Europe, bringing positive change for the European economy, enabling innovation, productivity, competitiveness and well-being;

Or. en

Amendment 17

Eva Kaili

Motion for a resolution
Recital B a (new)

Motion for a resolution

Amendment

Ba. *whereas machine learning raises also challenges to ensure non-discrimination, due process, transparency and understandability in decision-making processes;*

Or. en

Amendment 18

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution
Recital B b (new)

Motion for a resolution

Amendment

Bb. *whereas AI constitutes a significant tool to address global societal challenges and the Member's states through their public policy have to promote investments, to make available funds for R&D, and address barriers to AI development and adoption;*

Or. en

Amendment 19

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution
Recital C

Motion for a resolution

Amendment

C. *whereas rules and processes **should be** modified to account for artificial intelligence and robotics;*

C. *whereas **the existing** rules and processes **have to be evaluated and if needed** modified to account for artificial intelligence and robotics;*

Or. en

Amendment 20
Ashley Fox

Motion for a resolution
Recital C

Motion for a resolution

C. whereas rules and processes **should be modified** to account for artificial intelligence and robotics;

Amendment

C. whereas rules and processes **ought** to account for artificial intelligence and robotics;

Or. en

Amendment 21
Eva Kaili

Motion for a resolution
Recital C

Motion for a resolution

C. whereas rules and processes should be modified to account for artificial intelligence and robotics;

Amendment

C. whereas **existing** rules and processes should be **reviewed and** modified **if necessary** to account for artificial intelligence and robotics;

Or. en

Amendment 22
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution
Recital C a (new)

Motion for a resolution

Amendment

Ca. whereas several Member States are developing their own artificial intelligence strategies, and there is a need to coordinate those strategies, to pool research efforts, set common short and long term targets for AI development in

order to avoid investment gaps and overlaps;

Or. en

Amendment 23
Eva Kaili

Motion for a resolution
Recital C a (new)

Motion for a resolution

Amendment

Ca. whereas the developments in artificial intelligence can and should be designed in such a way that they preserve the dignity, autonomy and self-determination of the individual;

Or. en

Amendment 24
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Recital C b (new)

Motion for a resolution

Amendment

Cb. whereas building trusted ecosystem for the development of AI technology should be based on Data policy architecture. This implies the creation of smooth and simplified data collection and management programmes for educational research purposes to enable the development of AI in many domains: medical, financial, biological, energy, industrial, chemical or public sector. Believes that data driven AI ecosystem might be pan-European initiatives launched on open standards, mutual recognition of certificates and transparent rules of interoperability;

Amendment 25

Eva Kaili

Motion for a resolution

Recital C b (new)

Motion for a resolution

Amendment

Cb. whereas the trend towards automation requires that those involved in the development and commercialisation of artificial intelligence applications build in security and ethics at the outset, thereby recognizing that they must be prepared to accept legal liability for the quality of the technology they produce;

Or. en

Amendment 26

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Recital D

Motion for a resolution

Amendment

D. whereas AI alone does not ensure truth or fairness, as bias is introduced in how the data is selected and how the algorithm is written;

D. whereas truth and fairness are essential for the development and acceptance of the AI, whereas algorithmic design, constant re-evaluation processes as well as data quality should prevent from the bias;

Or. en

Amendment 27

Eva Kaili

Motion for a resolution

Recital D

Motion for a resolution

D. whereas AI alone **does not ensure** truth or fairness, as bias **is introduced** in how the data is selected and **how the algorithm is** written;

Amendment

D. whereas **in the absence of policy intervention, the implementation of** AI alone **may not lead to absolute** truth or fairness, as bias **can emerge** in how the data is **collected**, selected and **curated as well as in how algorithms are** written **and trained**;

Or. en

Amendment 28

Patrizia Toia

Motion for a resolution

Recital D

Motion for a resolution

D. whereas AI alone does not ensure truth or **fairness**, as bias is introduced in how the data is selected and how the algorithm is written;

Amendment

D. whereas AI alone does not ensure truth or **a fair redistribution of profits and costs**, as bias is introduced in how the data is selected and how the algorithm is written;

Or. it

Amendment 29

Ashley Fox

Motion for a resolution

Recital D

Motion for a resolution

D. whereas AI alone does not ensure truth or fairness, as bias **is** introduced in how the data is selected and how the algorithm is written;

Amendment

D. whereas AI alone does not ensure truth or fairness, as bias **can be** introduced in how the data is selected and how the algorithm is written **and can stem from bias present in society**;

Or. en

Amendment 30

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Recital D a (new)

Motion for a resolution

Amendment

Da. whereas commercial artificial intelligence platforms have moved from testing to real applications in health, environment and energy, transport; whereas machine-learning techniques are at the heart of all main web platforms and big data applications.

Or. en

Amendment 31

Patrizia Toia

Motion for a resolution

Recital E

Motion for a resolution

Amendment

E. whereas AI and robotics should be developed to complement humans and human-centred development;

E. whereas AI and robotics should be developed to complement humans and human-centred development; ***whereas such complementarity between AI and human intelligence certainly gives added value to the European economic and social system;***

Or. it

Amendment 32

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Recital E

Motion for a resolution

E. whereas AI and robotics should be developed *to complement humans* and human-centred *development*;

Amendment

E. whereas AI and robotics should be developed and *deployed in a* human-centred *way with an aim to support humans at their work and at home and relieve them from dangerous jobs*;

Or. en

Amendment 33
Dario Tamburrano

Motion for a resolution
Recital E

Motion for a resolution

E. whereas AI and robotics should be developed to complement humans and human-centred development;

Amendment

E. whereas AI and robotics should be developed to complement humans and human-centred development, *and not to replace it*;

Or. en

Amendment 34
Eva Kaili

Motion for a resolution
Recital E

Motion for a resolution

E. whereas AI and robotics should be developed to complement humans and human-centred development;

Amendment

E. whereas AI and robotics should be developed to complement *and prioritize* humans and *promote* human-centred development;

Or. en

Amendment 35
Patrizia Toia

Motion for a resolution
Recital E a (new)

Motion for a resolution

Amendment

Ea. considers that Europe's researchers and companies are involved in a wide variety of blockchain topics, with themes ranging from supply chain, government services, finance, IoT, healthcare, media, smart cities, energy and transport. Europe is strong in important fields related to blockchain like Artificial intelligence. Blockchain can play an important role in enhancing European innovation.

Or. en

Amendment 36
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Recital E a (new)

Motion for a resolution

Amendment

Ea. whereas cybersecurity technologies such as digital identities, cryptography or intrusion detection, and their application in areas such as finance, industry 4.0, energy, transportation, healthcare, or e-government are essential to safeguard the security and trust of online activity and transactions by both citizens, public administrations, and companies;

Or. en

Amendment 37
Dario Tamburrano

Motion for a resolution
Recital E a (new)

Motion for a resolution

Amendment

Ea. whereas artificial intelligence, together with the data that fuel it, constitutes a new critical infrastructure of our society, the maintenance of which requires ambitious and long term technological policies combining targeted public investments and new welfare measures oriented to the common good;

Or. en

Amendment 38
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Recital E a (new)

Motion for a resolution

Amendment

Ea. whereas text and data mining serves as a foundation for AI and machine learning applications, and are vital for SME's and start-ups because they allow them to access to large quantities of data to train AI algorithms;

Or. en

Amendment 39
Eva Kaili

Motion for a resolution
Recital E a (new)

Motion for a resolution

Amendment

Ea. whereas AI might be very energy intensive, it is important to advance AI use at the same time that we keep our energy efficiency and circular economy

targets intact.

Or. en

Amendment 40
Dario Tamburrano

Motion for a resolution
Recital E b (new)

Motion for a resolution

Amendment

Eb. whereas machine-learning and predictive models employing artificial intelligence are at the core of a dangerous economic model where goods are offered for free, while citizens risk becoming products themselves; whereas citizens should be given all the necessary means to protect their data and preserve their identities, thus exercising their technological sovereignty;

Or. en

Amendment 41
Algirdas Saudargas

Motion for a resolution
Recital E b (new)

Motion for a resolution

Amendment

Eb. whereas AI should fully support all European languages to provide all Europeans with equal opportunities to benefit from modern AI developments within the multilingual European information society;

Or. en

Amendment 42
Eva Kaili

Motion for a resolution
Recital E b (new)

Motion for a resolution

Amendment

Eb. whereas AI can significantly help Europe achieve its overreaching economic, social and environmental goals, as embedded in the EU Agenda 2030.

Or. en

Amendment 43
Eva Kaili

Motion for a resolution
Recital E c (new)

Motion for a resolution

Amendment

Ec. whereas further development and increased use of automated and algorithmic decision-making undoubtedly has an impact on the choices that a private person (such as a business or an internet user) and an administrative, judicial or other public authority take in rendering their final decision of a consumer, business or authoritative nature; whereas safeguards and the possibility of human control and verification need to be built into the process of automated and algorithmic decision-making;

Or. en

Amendment 44
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Paragraph 1

Motion for a resolution

1. Stresses that automation derived from artificial intelligence **will increase productivity** and therefore increase output; notes that, as in previous technological revolutions, some jobs **will be replaced** but new jobs will also **be created**;

Amendment

1. Stresses that automation **will increase productivity** derived from artificial intelligence and therefore increase output. Notes that as in previous technological revolutions **there will be the replacement of** some jobs but **also the creation of** new jobs **transforming lives and work practices**; **stresses that growth in Robotics and AI** will also **reduce human exposure to harmful and hazardous conditions**;

Or. en

Amendment 45
Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 1

Motion for a resolution

1. Stresses that automation **derived from** artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created;

Amendment

1. Stresses that automation **combined with artificial intelligence** artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created;

Or. en

Amendment 46
Ashley Fox

Motion for a resolution
Paragraph 1

Motion for a resolution

1. Stresses that automation ***derived from*** artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created;

Amendment

1. Stresses that automation ***combined with*** artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created;

Or. en

Amendment 47
Dario Tamburrano

Motion for a resolution
Paragraph 1

Motion for a resolution

1. Stresses that automation derived from artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created;

Amendment

1. Stresses that automation derived from artificial intelligence will increase productivity and therefore increase output; notes that, as in previous technological revolutions, some jobs will be replaced but new jobs will also be created, ***albeit not necessarily in the same sector or at the same level of qualification; stresses that education and training are thus crucial for avoiding net job losses and ensuring greater prosperity for all;***

Or. en

Amendment 48
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 1 a (new)

Motion for a resolution

Amendment

1a. Notes that all major technological advancements required a transition

period, one where the majority of the society needed to gain a deeper understanding of the technology and integrate it into their daily life. As a principle, the implementation of AI in activities that allow for interaction with the public must be accompanied by timely and proper information. In order to facilitate the adoption process, citizens need to be always informed if AI is involved in their interactions with what until recent was a human led interaction and be offered a easily identifiable alternative.

Or. en

Amendment 49
Eva Kaili

Motion for a resolution
Paragraph 1 a (new)

Motion for a resolution

Amendment

Ia. Notes the recent developments in monitoring and adapting to behavioural analytics. Calls on the Commission to develop an ethical framework that limits its use. Urges the European Commission to create awareness and an information campaign on AI and its use on behavioural analytics. Calls for the introduction of ethical rules on brain computer interface use and applications (such as mind reading) in order to avoid negative implication of that technology.

Or. en

Amendment 50
Dario Tamburrano

Motion for a resolution
Paragraph 1 a (new)

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Motion for a resolution

Amendment

1a. Calls on the Commission to analyse the psychological, perceptive, social and behavioural impacts on active and passive users resulting from the dissemination of artificial intelligence and robotics in the lives of citizens, particularly those at the developmental age, also focusing on phenomena like digital addiction and overreliance and misuse of technology;

Or. en

**Amendment 51
Gunnar Hökmark**

**Motion for a resolution
Paragraph 1 a (new)**

Motion for a resolution

Amendment

1a. Highlights the overall positive impact AI and robotics can have on most sectors, including industry, production, transport, societal services and health, on top of the value created by the technological innovation and research towards its realisation; thus, believes that the Union should facilitate this development by ensuring that academia, industry and start-ups are supported by a flexible and least-restrictive regulatory framework, enabling Europe to spearhead the development of AI and its integration in the economy; points to that rules and regulation on AI and its use should in principle be guided by the same rules and ethical code as in the human society;

Or. en

Amendment 52
Neoklis Sylikiotis

Motion for a resolution
Paragraph 1 a (new)

Motion for a resolution

Amendment

1a. Considers that in order to maximize the benefits of artificial intelligence it must not be used for a mere substitution of workers, but it must help to create more quality and decent jobs and scale-up the whole production of a company.

Or. en

Amendment 53
Ashley Fox

Motion for a resolution
Paragraph 1 a (new)

Motion for a resolution

Amendment

1a. Recommends that Member States alongside private sector actors identify the risks and develop strategies to ensure relevant retraining and reskilling programmes are developed.

Or. en

Amendment 54
Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 1 a (new)

Motion for a resolution

Amendment

1a. Calls on the European Commission to examine the impacts that the applied AI solutions in industry may

bring to the EU labour force;

Or. en

Amendment 55
Dario Tamburrano

Motion for a resolution
Paragraph 1 b (new)

Motion for a resolution

Amendment

1b. Welcomes the setup of AI-based participative platforms allowing citizens to be effectively heard and interact with governments by making proposals, including through participatory budgets and other instruments of direct democracy; stresses that bottom-up projects can foster citizen participation and help people take informed decisions in a more effective and democratic way; cites as an example of this the projects "Better Reykjavik" and "Active Citizen" developed by the city of Reykjavik;

Or. en

Amendment 56
Eva Kaili

Motion for a resolution
Paragraph 1 b (new)

Motion for a resolution

Amendment

1b. Calls on the Commission to propose a framework that penalizes perception manipulation practices when personalized content or news feed leads to negative feelings and distortion of the perception of reality that might lead to negative consequences (for example, election outcomes, or distorted perceptions on social matters like

migration).

Or. en

Amendment 57
Gunnar Hökmark

Motion for a resolution
Paragraph 1 b (new)

Motion for a resolution

Amendment

1b. Stresses that a competitive research environment is key to developing artificial intelligence; underlines the importance of supporting excellent research, including fundamental science and high-risk high-reward projects, and to foster a European research area with attractive conditions for funding, mobility and access to infrastructure across the Union, based on a principle of openness towards third countries and expertise from outside the Union; furthermore, highlights the significance of European initiatives on cloud computing and high-performance computing, which will further enhance the development of deep-learning algorithms and the processing of big data; strongly believes that for these initiatives to be successful and relevant to the development of AI, the infrastructure needs to be open to both public and private entities based in the Union and elsewhere, and be governed by least-restrictive access criteria;

Or. en

Amendment 58
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution
Paragraph 1 b (new)

Motion for a resolution

Amendment

1b. Recommends that Member States together with businesses, educators and other relevant stakeholders identify the groups that are most at risk of displacement due to AI and develop strategies to manage this transition by supporting reskilling programs, improving professional education and long-life trainings for the current and future workforce with particular focus on SMS; underlines that companies themselves have to invest in training and reskilling of existing workforce in order to meet their needs.

Or. en

Amendment 59
Neoklis Sylikiotis

Motion for a resolution
Paragraph 1 b (new)

Motion for a resolution

Amendment

1b. Stresses that the development of robotics in the EU will have a strong impact on industrial relations. Believes that this impact should be addressed in a balanced manner so as to promote the reindustrialisation and allow also the workers to enjoy the productivity gains.

Or. en

Amendment 60
Dario Tamburrano

Motion for a resolution
Paragraph 1 c (new)

Motion for a resolution

Amendment

Ic. Stresses the need to avoid that the deployment of artificial intelligence and robotics aggravate the growing inequalities and divisions of our society by leading to a higher concentration of wealth and influence in the hands of a minority; calls on the Commission to analyse the transformative effects of AI and robotics on the welfare systems, with the aim of defining how European distribution and solidarity mechanisms will have to change in order to maintain, or even improve, social protection standards, regardless of age, nationality, gender or employment status;

Or. en

Amendment 61

Eva Kaili

Motion for a resolution

Paragraph 1 c (new)

Motion for a resolution

Amendment

Ic. Calls on the Commission to respect the right of citizens to an offline life and to ensure that there will be no discrimination of citizens that there are no data recorded on them.

Or. en

Amendment 62

Gunnar Hökmark

Motion for a resolution

Paragraph 1 c (new)

Motion for a resolution

Amendment

1c. Underlines that a rapid development of 5G is essential to secure that the Union can reap the full benefits of AI, making it possible to renew and develop industries and services, which are the backbone of the European economy, as well as to support the emergence of new services, production and markets, which is essential in order to safeguard new jobs and a high level of employment;

Or. en

Amendment 63

Patrizia Toia

Motion for a resolution

Paragraph 2

Motion for a resolution

2. Urges Member States to focus on retraining workers in ***the*** industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Amendment

2. Urges Member States to focus on retraining workers in ***all*** industries ***and in those*** most affected by automation; stresses that new education programmes should focus on developing the skills of workers ***through lifelong, continuing skills training*** so that they can seize job opportunities within the new jobs created by AI ***and are able to handle the ongoing technological changes and innovative challenges;***

Or. it

Amendment 64

Ashley Fox

Motion for a resolution

Paragraph 2

Motion for a resolution

2. Urges Member States to focus on retraining workers in the industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Amendment

2. Urges Member States to focus on retraining workers in the industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI, ***encourages the development of digital literacy programmes in schools, the development of apprenticeships and vocational training priorities***;

Or. en

Amendment 65

Eva Kaili

Motion for a resolution

Paragraph 2

Motion for a resolution

2. Urges Member States to focus on retraining workers in the industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Amendment

2. Urges ***the Commission and*** Member States to focus on retraining workers in the industries most affected by ***the automation of tasks***; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Or. en

Amendment 66

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 2

Motion for a resolution

2. Urges Member States to focus on

Amendment

2. Urges Member States ***and the***

retraining workers in the industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Commission to focus on retraining workers in the industries most affected by automation; stresses that new education programmes should focus on developing the skills of workers so that they can seize job opportunities within the new jobs created by AI;

Or. en

Amendment 67
Patrizia Toia

Motion for a resolution
Paragraph 2 – point 1 (new)

Motion for a resolution

Amendment

(1) Calls on the Commission to promote lifelong learning in scientific and mathematical subjects with a view to supporting the development of the digital skills and tools necessary to underpin AI- and robotics-related processes;

Or. it

Amendment 68
Neoklis Sylikiotis

Motion for a resolution
Paragraph 2 – subparagraph 1 (new)

Motion for a resolution

Amendment

Urges the Commission and the Member States to develop and pursue digital skills training and retraining strategies that can ensure European society's active and inclusive participation in the paradigm shift;

Or. en

Amendment 69

Eva Kaili

Motion for a resolution

Paragraph 2 – subparagraph 1 (new)

Motion for a resolution

Amendment

Urges the Commission and the Member States to develop and pursue digital skills training and retraining strategies that can ensure European society's active and inclusive participation in the paradigm shift;

Or. en

Amendment 70

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Underlines that the current debate on skills takes an approach based on the need to ensure qualified developers and informed users. The answer to that is in general a narrow list of skills and educational programs, which could become obsolete as soon as issued, due to the fast pace of technological advances. The answer to this challenge is to design a delivery system that allows skills to be acquired as needed, sufficiently funded by the European Union, Member States and the private sector.

Or. en

Amendment 71

Neoklis Sylikiotis

Motion for a resolution
Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Calls on the Commission and Member States to ensure protection of workers and working conditions in the face of technological transformation, providing for those who lose their jobs during re-skilling to avoid large-scale economic or social unrest in line with the European Pillar of Social Rights;

Or. en

Amendment 72
Eva Kaili

Motion for a resolution
Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Calls on the Commission and Member States to ensure protection of workers and working conditions in the face of technological transformation, providing for those who lose their jobs during re-skilling to avoid large-scale economic or social unrest in line with the European Pillar of Social Rights;

Or. en

Amendment 73
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution
Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Believes that digital literacy is one of the most important factors for future

AI development. Notes that the digital literacy can support wide participation in the data economy solutions and facilitate communication and cooperation with all partners in the digital relationships;

Or. en

Amendment 74
Dario Tamburrano

Motion for a resolution
Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Stresses the need to reconsider the working hours/income paradigm in light of the new industrial revolution that is propelled by artificial intelligence and robotics, and to create new employment sustainability models, including through the introduction of a minimum citizens' income;

Or. en

Amendment 75
Patrizia Toia

Motion for a resolution
Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Notes the importance of boosting learning within active digital communities (for example blogs, social networks, or webinars) through 'learning by doing' methodologies;

Or. it

Amendment 76

Ashley Fox

Motion for a resolution

Paragraph 2 a (new)

Motion for a resolution

Amendment

2a. Urges Member States to address barriers to entry in the labour force such as excessive qualifications

Or. en

Amendment 77

Patrizia Toia

Motion for a resolution

Paragraph 2 b (new)

Motion for a resolution

Amendment

2b. Highlights the key role played by the European Institute of Innovation and Technology and the European Digital Innovation Hubs in creating synergies between the training system, industry and research in order to support the creation of new digital skills and new job profiles relating to the technological transformation; points out that the European Digital Innovation Hubs should provide digital transformation services – including testing and experimentation facilities – and enabling technologies demonstrators targeted at SMEs, start-ups and midcaps, also in sectors that are slow in the uptake of digital and related technologies;

Or. it

Amendment 78

Eva Kaili

Motion for a resolution
Paragraph 2 b (new)

Motion for a resolution

Amendment

2b. *Calls on the Commission to invest in education and skills for workers but at the same time to explore and evaluate other supporting measures such as a universal basic income or an increased social security for a transitional period and for specific job sectors that might be drastically affected by the introduction of advanced AI systems and automation.*

Or. en

Amendment 79
Neoklis Sylikiotis

Motion for a resolution
Paragraph 2 b (new)

Motion for a resolution

Amendment

2b. *Calls on the Commission to invest in education and skills for workers but at the same time to explore and evaluate other supporting measures such as a universal basic income or an increased social security for a transitional period and for specific job sectors that might be drastically affected by the introduction of advanced AI systems and automation.*

Or. en

Amendment 80
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 2 b (new)

Motion for a resolution

Amendment

2b. *Notes that as citizens of all ages, from children to elderly, can be potentially impacted. Education curricula needs to be adapted, including through the establishment of new learning paths and the use of new delivery technologies.*

Or. en

Amendment 81
Patrizia Toia

Motion for a resolution
Paragraph 2 c (new)

Motion for a resolution

Amendment

2c. *Stresses the importance of using devices such as exoskeletons and digital twins in many industrial sectors, in order to ensure that people are safe in dangerous workplaces;*

Or. it

Amendment 82
Eva Kaili

Motion for a resolution
Paragraph 3

Motion for a resolution

Amendment

3. Notes that AI and robotics have potential benefits in the care-giving sector as life expectancy increases;

3. Notes that AI and robotics have potential benefits in the care-giving sector as life expectancy increases, *for instance helping doctors and nurses to have more time for high value activities(e.g. patient interaction);*

Or. en

Amendment 83

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 4

Motion for a resolution

4. Recognises that the increased use of sensors in the field of robotics has enhanced the scope of care giving and enables patients to receive care remotely from their own homes;

Amendment

4. Recognises that the increased use of sensors in the field of robotics has enhanced the scope of care giving and enables patients to ***have more personalised treatment and services, generate more meaningful data as well as*** receive care remotely from their own homes;

Or. en

Amendment 84

Eva Kaili

Motion for a resolution

Paragraph 4 a (new)

Motion for a resolution

Amendment

4a. Recommends a focus on clear disclosure of AI devices being utilized by seniors with their families, caregivers and manufacturers or health/insurance providers to avoid manipulation or data breaches that could cause widespread harm regarding AI adoption or consumer trust;

Or. en

Amendment 85

Esther de Lange

Motion for a resolution

Paragraph 4 a (new)

Motion for a resolution

Amendment

4a. *Notes that automated weapons systems should continue to have a human-in-command approach to artificial intelligence.*

Or. en

Amendment 86
Eva Kaili

Motion for a resolution
Paragraph 4 a (new)

Motion for a resolution

Amendment

4a. *Calls on the Commission to consider the creation of centres of excellence for the monitoring of robot technologies, suggest the creation of a data bases of AI applications describing the characteristics and taxonomy in order to model a framework of regulatory sandboxes, running hackathons that promote AI for good, create a code of conduct and standards that could be the beneficial outcome of that AI excellence centre in helping member states and private stakeholders.*

Or. en

Amendment 87
Ashley Fox

Motion for a resolution
Subheading 4 a (new)

Motion for a resolution

Amendment

Research and development

Or. en

Amendment 88

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Subheading 4 a (new)

Motion for a resolution

Amendment

Research and development

Or. en

Amendment 89

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 5

Motion for a resolution

Amendment

5. *Welcomes the ambition of Japan's Robot Strategy to have 4 out of 5 patients opt for robotic care and calls on the Commission to reciprocate this ambition;* *deleted*

Or. en

Amendment 90

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 5

Motion for a resolution

Amendment

5. *Welcomes* the ambition of Japan's Robot Strategy to have 4 out of 5 patients opt for robotic care *and* calls on the Commission *to reciprocate this ambition;*

5. *Notes* the ambition of Japan's Robot Strategy to have 4 out of 5 patients opt for robotic care; *Underlines that Europeans still feel uncomfortable with the idea of using robots in the care for the elderly people or in medical procedures;* calls on the Commission *and the Member States to develop strategies and*

communication campaigns aiming at upgrade the perception of robots in a daily life;

Or. en

Amendment 91

Ashley Fox

Motion for a resolution

Paragraph 5

Motion for a resolution

5. **Welcomes** the ambition of Japan's Robot Strategy to have 4 out of 5 patients opt for robotic care **and** calls on the Commission **to reciprocate this ambition;**

Amendment

5. **Notes** the ambition of Japan's Robot Strategy to have 4 out of 5 patients opt for robotic care. **Recognises that according to Eurobarometer at present EU citizens do not have the same sentiment.** Calls on the Commission **and Member States to develop strategies and communication campaigns to raise awareness of the benefits of the day-to-day use of robots;**

Or. en

Amendment 92

Eva Kaili

Motion for a resolution

Paragraph 5

Motion for a resolution

5. Welcomes the ambition of Japan's Robot Strategy **to have 4 out of 5 patients opt for robotic care** and calls on the Commission **to reciprocate this ambition;**

Amendment

5. Welcomes the ambition of Japan's Robot Strategy and calls on the Commission **to consider similar strategies, taking into account the cultural perspective of European societies;**

Or. en

Amendment 93

Ashley Fox

Motion for a resolution

Paragraph 5 a (new)

Motion for a resolution

Amendment

5a. Notes that citizens are concerned about not knowing when AI is being used and what information will be processed. Recommends that there is disclosure when AI is used by consumers. To maintain consumer trust, it is important that data transmitted remains secure.

Or. en

Amendment 94

Ashley Fox

Motion for a resolution

Paragraph 5 a (new)

Motion for a resolution

Amendment

5a. Stresses that investment in the development of AI ethics should also be encouraged. Believes that any model should have ethics by design.

Or. en

Amendment 95

Algirdas Saudargas

Motion for a resolution

Subheading 3 a (new)

Motion for a resolution

Amendment

Artificial intelligence for overcoming language barriers and improving cross-culture communication

Amendment 96
Algirdas Saudargas

Motion for a resolution
Paragraph 5 a (new)

Motion for a resolution

Amendment

5a. Stresses that artificial intelligence technologies need to support all EU languages in order to be inclusive and comply with European multilingualism policy;

Recalls the European Parliament request to set up a large-scale, long-term funding programme with the aim of developing the next breakthroughs in automated language understanding of all European languages in line with the “Human Language Project”.

Notes that Artificial intelligence and language technology can provide important applications to foster Europe’s unity in its diversity: automated translation, conversational agents and personal assistants, spoken-language interfaces for robots and the internet of things, smart analytics, automated identification of online propaganda, fake news, hate speech;

Or. en

Amendment 97
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution
Paragraph 5 b (new)

Motion for a resolution

Amendment

5b. Welcomes the Commission

proposal on the digital Europe programme and the budget of 2.5 billion euros foreseen to the artificial intelligence as well as the increased financing under the horizon 2020. Believes that the budget proposed by the European Parliament for both programmers constitutes the absolute minimum in order to effectively provide better access for public authorities and businesses, especially SMEs, to AI testing and experimentation facilities. Underlines that EU financing fosters, leverages and complements Member states and industry research budgets for the AI and that synergies are needed between nationals, private and EU research programmes.

Or. en

Amendment 98
Ashley Fox

Motion for a resolution
Paragraph 5 b (new)

Motion for a resolution

Amendment

5b. Welcomes the Commission's proposal on the digital Europe programme and the budget of 2.5 billion euros pledged to artificial intelligence as well as increased funding under the horizon 2020 programme. Understands the importance of EU funding complementing Member State and industry research budgets for AI and the need for collaboration between public, private and EU research programmes.

Or. en

Amendment 99
Algirdas Saudargas, Pilar del Castillo Vera, Michal Boni

Motion for a resolution
Paragraph 5 c (new)

Motion for a resolution

Amendment

5c. *Notes that although Artificial Intelligence has a purely technological research and innovation component, research on AI must also be undertaken in the social, ethical and liability areas;*

Or. en

Amendment 100

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution
Paragraph 5 d (new)

Motion for a resolution

Amendment

5d. *Encourages Member States to develop multi stakeholders partnerships across industry and research institutes as well as joint AI centres of excellence that will facilitate investments in the AI research and create collaboration and networking across Europe;*

Or. en

Amendment 101

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 5 e (new)

Motion for a resolution

Amendment

5e. *Stresses that Europe has to dedicate the new FET flagship to the Artificial intelligence with a particular emphasis on human centric approach and language technologies;*

Amendment 102

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 5 f (new)

Motion for a resolution

Amendment

5f. Believes that Artificial Intelligence, machine learning and exponential leaps in data availability and cloud computing fuel research initiatives to understand biology at molecular and cellular levels, guide the development of medical treatments and analyse data streams to detect health threats, predict disease outbreaks and counsel patients. Notes that Data mining and data-navigation techniques can be used to identify care gaps, risks, trends and patterns;

Or. en

Amendment 103

Patrizia Toia

Motion for a resolution

Paragraph 6

Motion for a resolution

Amendment

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and **outline their** development **priorities**; considers that the coordination of private- and public-sector investment should be encouraged to ensure that

6. Notes the importance of greater investment in this field, **including through measures taken by other European programmes, in particular Digital Europe and Horizon Europe, and by developing synergies** in order to remain competitive **and strengthen the EU's strategic autonomy**; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should

development is focused;

also be encouraged to invest in research in this sector and *in the* development of *industrial applications and B2B*; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Or. it

Amendment 104
Dario Tamburrano

Motion for a resolution
Paragraph 6

Motion for a resolution

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Amendment

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused; *stresses that micro, small and medium enterprises should be the primary recipient of investment, in order for the EU to preserve and strengthen its economic fabric and to boost its competitiveness*;

Or. en

Amendment 105
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Paragraph 6

Motion for a resolution

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Amendment

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused; ***calls on the Commission to assess the necessity of setting up a platform that brings together industry, governments and research institutes;***

Or. en

Amendment 106

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution

Paragraph 6

Motion for a resolution

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Amendment

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; ***Welcomes the EU invest proposal and other public private partnerships that will foster private funding;*** considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Or. en

Amendment 107
Ashley Fox

Motion for a resolution
Paragraph 6

Motion for a resolution

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that development is focused;

Amendment

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to invest in research in this sector and outline their development priorities; ***Welcomes the EU Invest proposal and other public private partnerships that will foster private funding.*** Considers that the coordination of private and public-sector investment should be encouraged to ensure that development is focused;

Or. en

Amendment 108
Eva Kaili

Motion for a resolution
Paragraph 6

Motion for a resolution

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to ***invest*** in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure that

Amendment

6. Notes the importance of greater investment in this field in order to remain competitive; recognises that while most of the investment and innovation in this area comes from private sector ventures, Member States and the Commission should also be encouraged to ***continue investing*** in research in this sector and outline their development priorities; considers that the coordination of private- and public-sector investment should be encouraged to ensure

development is focused;

that development is focused;

Or. en

Amendment 109

Eva Kaili

Motion for a resolution

Paragraph 6 a (new)

Motion for a resolution

Amendment

6a. Stresses that investment in the development of AI ethics should also be encouraged, with the recognition that methodologies utilizing value-driven design or Responsible Research and Innovation, provide greater opportunities to avoid unintended negative consequences with AI implementation and greater opportunity for innovation than without ethics-by-design.

Or. en

Amendment 110

Patrizia Toia

Motion for a resolution

Paragraph 6 a (new)

Motion for a resolution

Amendment

6a. Points out that alternative business models need to be created for these new 'disruptive' technologies, based on the concept of service and not just of product, and old production models need to be adapted;

Or. it

Amendment 111
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Paragraph 6 a (new)

Motion for a resolution

Amendment

6a. Welcomes the Digital Europe Programme published by the Commission on June 6th 2018;

Or. en

Amendment 112
Eva Kaili

Motion for a resolution
Paragraph 6 b (new)

Motion for a resolution

Amendment

6b. Welcomes the ambition of the European Commission for more than 20 billion euros per year in the EU in public and private research and development investments in AI and stresses the need to increase this pace in order to remain competitive on AI technology development in the world.

Or. en

Amendment 113
Caroline Nagtegaal, Angelika Mlinar

Motion for a resolution
Paragraph 6 b (new)

Motion for a resolution

Amendment

6b. Stresses that education aspects should be properly addressed; considers in particular the need for digital skills, including coding, to be included in

teaching and training from the early school years to life-long learning;

Or. en

Amendment 114
Eva Kaili

Motion for a resolution
Paragraph 6 c (new)

Motion for a resolution

Amendment

6c. *Stresses that investments on AI which can have significant uncertainty levels, should be complemented by EU funding for example from EIB, EIF, or through InvestEU and EFSI, schemes which can help on risk sharing.*

Or. en

Amendment 115
Eva Kaili

Motion for a resolution
Paragraph 6 d (new)

Motion for a resolution

Amendment

6d. *Calls on the Commission to ensure coordination and scaling of European policy as Europe has a lot of AI start-ups that are fragmented.*

Or. en

Amendment 116
Eva Kaili

Motion for a resolution
Paragraph 6 e (new)

Motion for a resolution

Amendment

6e. Urges the Commission to not allow EU funding for weaponized AI. Furthermore, suggests that the EU must keep the intellectual property of research conducted with EU public money. Urges the Commission to exclude from EU funding, companies that are researching and developing AI consciousness.

Or. en

Amendment 117

Patrizia Toia

Motion for a resolution

Subheading 6

Motion for a resolution

Amendment

Innovation and societal acceptance

Innovation and societal acceptance **and responsibility**

Or. it

Amendment 118

Isabella De Monte

Motion for a resolution

Paragraph 7

Motion for a resolution

Amendment

7. Notes that the future of this technology **is contingent on societal acceptance** and that greater emphasis must be placed on training and education to ensure greater understanding of the technology and its role; **also notes** that **if consumers are not willing to adopt this technology, there will be less drive for innovation in this sector;**

7. Notes that the future of this technology **should be managed responsibly for the benefit of all societies** and that greater emphasis must **therefore** be placed on training and education to ensure greater understanding of the technology and its role; **points out that a greater understanding of the benefits offered by this technology will promote innovation in this sector;**

Amendment 119

Ashley Fox

Motion for a resolution

Paragraph 7

Motion for a resolution

7. Notes that the future of this technology is contingent on societal acceptance and that greater emphasis must be placed on **training and education** to ensure greater understanding of the technology and its **role**; also notes that if consumers are not willing to adopt this technology, there will be less drive for innovation in this sector;

Amendment

7. Notes that the future of this technology is contingent on societal acceptance and that greater emphasis must be placed on **communicating its benefits** to ensure greater understanding of the technology and its **applications**; also notes that if consumers are not willing to adopt this technology, there will be less drive for innovation in this sector;

Or. en

Amendment 120

Eva Kaili

Motion for a resolution

Paragraph 7

Motion for a resolution

7. Notes that the future of this technology is contingent on societal acceptance and that greater emphasis must be placed on training and education to ensure greater understanding of the technology and its role; also notes that if **consumers are** not willing to adopt **this technology**, there will be less drive for innovation in this sector;

Amendment

7. Notes that the future of this technology is contingent on societal acceptance and that greater emphasis must be placed on training and education to ensure greater understanding of the technology and its role; also notes that if **society is** not willing to adopt **AI technologies**, there will be less drive for innovation in this sector;

Or. en

Amendment 121

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Jerzy Buzek, Henna Virkkunen

Motion for a resolution

Paragraph 7 a (new)

Motion for a resolution

Amendment

7a. Considers that public acceptance depends on how public is informed about the opportunities, challenges and developments of artificial intelligence; Recommends Member States and the Commission to launch various information campaigns on the limitations and potential of AI and robotics and addressing main public concerns such as privacy, safety and transparency of decisions taken by automated systems;

Or. en

Amendment 122

Patrizia Toia

Motion for a resolution

Paragraph 7 a (new)

Motion for a resolution

Amendment

7a. Stresses the importance of promoting and providing a ‘digital culture’, through knowledge and skills that foster an understanding of digital relevance, artificial intelligence and robotics in everyday life and a widespread grounding in the proper use of technological tools that should permeate all digital programmes through ad hoc measures;

Or. it

Amendment 123

Ashley Fox

Motion for a resolution

Paragraph 7 a (new)

Motion for a resolution

Amendment

7a. Considers that public acceptance relies on how the public is informed about the opportunities, challenges and developments of artificial intelligence; recommends that Member States and the Commission ensure the dissemination of credible information addressing the main concerns regarding AI and robotics e.g. Privacy, safety and transparency of decisions.

Or. en

Amendment 124

Eva Kaili

Motion for a resolution

Paragraph 7 a (new)

Motion for a resolution

Amendment

7a. Highlights the importance of public policies which ensure social inclusion and internal cohesion within the EU in the adoption of AI in the public and private sector;

Or. en

Amendment 125

Eva Kaili

Motion for a resolution

Paragraph 7 b (new)

Motion for a resolution

Amendment

7b. Recommends to the Commission to ensure that the intellectual property of research conducted with EU funding should remain in European universities.

Or. en

Amendment 126

Eva Kaili

Motion for a resolution

Paragraph 7 c (new)

Motion for a resolution

Amendment

7c. Highlights that cloud computing has a key role to play in driving the uptake of AI. Access to cloud services allows private companies, public institutions, research and academic institutions, and users to develop and use AI in an efficient and economically viable way.

Or. en

Amendment 127

Eva Kaili

Motion for a resolution

Paragraph 8

Motion for a resolution

Amendment

8. Welcomes the use of sandboxes to introduce, in cooperation with regulators, innovative new ideas, allowing safeguards to be built into the technology from the start, thus facilitating and encouraging its market entry;

8. Welcomes the use of **experimental policymaking such as randomized controlled trials or regulatory** sandboxes to introduce, in cooperation with regulators, innovative new ideas, allowing safeguards to be built into the technology from the start, thus facilitating and encouraging its market entry;

Amendment 128

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. Supports the operational objectives of the DEP to build up and strengthen core artificial intelligence capacities in the Union, to make them accessible to all businesses and public administrations and to reinforce and network existing artificial intelligence testing and experimentation facilities in Member States;

Or. en

Amendment 129

Patrizia Toia

Motion for a resolution

Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. Stresses that the dissemination of artificial intelligence and robotics should take place while fully respecting human rights and on no account should stereotypes against women, or any other form of discrimination, be reproduced in machines and robots;

Or. it

Amendment 130

Eva Kaili

Motion for a resolution
Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. *Stresses that a significant challenge to the future of AI systems is the inconsistent quality of software production technology and therefore there is a great need of standardization of the construction and use of AI systems.*

Or. en

Amendment 131
Ashley Fox

Motion for a resolution
Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. *Highlights the need for introducing AI-specific regulatory sandboxes to test the safe and effective use of AI technologies tested in a real-world environment.*

Or. en

Amendment 132
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. *Stresses that connectivity is a precondition for Europe to become part of the gigabit society and AI is a clear example of the exponential growth of a demand for high quality, fast, secure and pervasive connectivity; believes that the Union and the Member States should*

continue to foster measures to stimulate investment in and take-up of very high capacity networks in the European Union;

Or. en

Amendment 133
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. Notes that Artificial Intelligence is a notion encompassing a wide range of products and applications, starting from automation, algorithms, narrow artificial intelligence and general artificial intelligence. A comprehensive law or regulation of artificial intelligence shall be approached with caution, as sectorial regulation may provide policies that are general enough but also refined up to the level where they are meaningful for the industrial sector.

Or. en

Amendment 134
Eva Kaili

Motion for a resolution
Subheading 8 a (new)

Motion for a resolution

Amendment

Agriculture/Food chain

Or. en

Amendment 135

Eva Kaili

Motion for a resolution

Paragraph 8 a (new)

Motion for a resolution

Amendment

8a. *Notes that AI can catalyse a disruptive transformation of the current food system towards a more diverse, resilient, regionally adapted and healthy model for the future.*

Or. en

Amendment 136

Ashley Fox

Motion for a resolution

Paragraph 8 b (new)

Motion for a resolution

Amendment

8b. *Notes that for greater societal acceptance of artificial intelligence, there needs to be assurances that the systems being used are safe and secure.*

Or. en

Amendment 137

Eva Kaili

Motion for a resolution

Paragraph 8 b (new)

Motion for a resolution

Amendment

8b. *Notes that before any AI system is put into use, we need assurances that it is safe and secure.*

Or. en

Amendment 138

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 8 b (new)

Motion for a resolution

Amendment

8b. Underlines that EU legislation related to the implementation of the DSM strategy shall remove barriers for the deployment of AI, ask the Commission to evaluate where it is necessary to update policy and regulatory frameworks in order to build a single European market for AI;

Or. en

Amendment 139

Eva Kaili

Motion for a resolution

Paragraph 8 b (new)

Motion for a resolution

Amendment

8b. Notes that AI can play in efforts to help tackle food security issues, predict famine and foodborne disease outbreaks, reduce food loss and waste and help improve sustainable management of land, water and other environmental resources critical to ecosystem health.

Or. en

Amendment 140

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 8 b (new)

Motion for a resolution

Amendment

8b. *Underlines that finding scope and applications for AI should be the result of a design process led by needs and guided by principles that take into account the intended result and the best path to achieve it, from an economic and social point of view. The existence of clear policies at all stages of development will lead to a fit for purpose implementation and cover the risks and downsides.*

Or. en

Amendment 141

Eva Kaili

Motion for a resolution

Paragraph 8 c (new)

Motion for a resolution

Amendment

8c. *Recommends the use and promotion of public-private partnerships to explore solutions to key challenges such as building a data ecosystem, favouring the access, sharing and flow of data while safeguarding people's privacy rights.*

Or. en

Amendment 142

Eva Kaili

Motion for a resolution

Paragraph 8 c (new)

Motion for a resolution

Amendment

8c. *Highlights that AI can intervene at critical points along the food system value chain from production to consumption*

and enhance our capacity to fundamentally alter the way we produce, process and buy food from informing land use planning.

Or. en

Amendment 143
Ashley Fox

Motion for a resolution
Paragraph 8 c (new)

Motion for a resolution

Amendment

8c. Notes the importance of encouraging both the adoption of AI by consumers but also the adoption of AI in businesses.

Or. en

Amendment 144
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 8 c (new)

Motion for a resolution

Amendment

8c. Notes that AI has the potential to increase efficiency, comfort and welfare in many sectors, if the established industrial stakeholders cooperate with the AI developers. A large volume of data, that is not personal in nature, is currently in the possession of stakeholders and through partnerships can be used to increase their efficiency. For that to become a reality, cooperation between the users and the developers of AI is a prerequisite.

Or. en

Amendment 145
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 8 d (new)

Motion for a resolution

Amendment

8d. Underlines that the AI can be an enabler for SME's but also increases the leverage of big early adopters and developers. From the competition point of view, we need to ensure that new distortions are being properly evaluated and tackled.

Or. en

Amendment 146
Eva Kaili

Motion for a resolution
Paragraph 8 d (new)

Motion for a resolution

Amendment

8d. Notes that AI can improve resource management and input efficiency, to help reduce post-harvest waste and influence consumption choices.

Or. en

Amendment 147
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 8 e (new)

Motion for a resolution

Amendment

8e. *Notes that the European economy has a large share of SME's and much effort has been invested in developing them, therefore these particular efforts should be continued and built upon, avoiding potential imbalances.*

Or. en

Amendment 148
Eva Kaili

Motion for a resolution
Paragraph 8 e (new)

Motion for a resolution

Amendment

8e. *Notes that AI in the form of precision farming holds the potential to disrupt on farm production of food as well as broader land management by improving land use planning, predicting land use change and monitoring crop health whilst having the potential to transform the prediction of extreme weather events.*

Or. en

Amendment 149
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 8 f (new)

Motion for a resolution

Amendment

8f. *Notes that in the current industrial landscape a delicate balance exists between the owners and the workers. The advances in implementing AI in industry*

should be done with a broad consultation of social partners as the potential shift in the number of people working in the industry requires proactive policies to help workers adapt to the new demands and to ensure that the gains are broadly shared. This requires re-thinking and re-designing labour market policies, social security schemes and taxation.

Or. en

Amendment 150

Eva Kaili

Motion for a resolution

Paragraph 8 f (new)

Motion for a resolution

Amendment

8f. Notes that AI can radically alter the delivery of inputs, control of pests and management of farms, influence farming practices, alter the way insurance products are delivered or help predict and avoid future famine and severe acute malnutrition outbreaks.

Or. en

Amendment 151

Eva Kaili

Motion for a resolution

Paragraph 8 g (new)

Motion for a resolution

Amendment

8g. Notes that AI can enable more optimal decisions about how to manage farm systems and stimulate the development of decision support and recommender systems. by improving farm efficiencies and farm health.

Amendment 152

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 8 g (new)

Motion for a resolution

Amendment

8g. *Welcomes the potential of AI in modelling and identifying the impact of human activity on climate. While the increased digitisation also brings new energy needs, it can also bring efficiency into previously energy intensive sectors and provide for better understanding of processes, leading to their improvement.*

Or. en

Amendment 153

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 8 h (new)

Motion for a resolution

Amendment

8h. *Notes that cybersecurity is an important aspect of AI, especially given the challenges for transparency in high level AI. The technological perspective including auditing of the source code and requirements for transparency and accountability should be complemented by an institutional approach, dealing with the challenges of introducing of AI developed in other countries into the EU single market.*

Or. en

Amendment 154

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Subheading 7

Motion for a resolution

Supporting conditions: connectivity, data accessibility and high-performance computing

Amendment

Supporting conditions: connectivity, data accessibility and high-performance computing, *cloud infrastructure*

Or. en

Amendment 155

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 9

Motion for a resolution

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good;

Amendment

deleted

Or. en

Amendment 156

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 9

Motion for a resolution

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and

Amendment

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and

calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good;

calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good; ***recalls that advance text and data mining can in particular the quality of the data;***

Or. en

Amendment 157
Isabella De Monte

Motion for a resolution
Paragraph 9

Motion for a resolution

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, ***and calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good;***

Amendment

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry; ***stresses the need, at the same time, to protect consumers' privacy and to ensure that their data are secure;***

Or. it

Amendment 158
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 9

Motion for a resolution

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data ***by making data a common good;***

Amendment

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data;

Or. en

Amendment 159

Ashley Fox

Motion for a resolution

Paragraph 9

Motion for a resolution

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data by making data *a common good*;

Amendment

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data by making data *freely available*;

Or. en

Amendment 160

Eva Kaili

Motion for a resolution

Paragraph 9

Motion for a resolution

9. Recalls that the availability of quality data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good;

Amendment

9. Recalls that the availability of *high quality and meaningful* data is essential for real competitiveness in the AI industry, and calls for public authorities to ensure ways of producing, sharing and governing data by making data a common good *while safeguarding privacy and sensitive data*;

Or. en

Amendment 161

Ashley Fox

Motion for a resolution

Paragraph 9 a (new)

Motion for a resolution

Amendment

9a. Believes that the success of AI applications, tailored to users across the

EU, often requires extensive knowledge of local markets, as well as access to and use of adequate local data for the datasets training, system testing and validation, especially in sectors related to natural language processing. Asks Member states to encourage the availability of high quality, interoperable and open public sector as well as privately-held data.

Or. en

Amendment 162

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Jerzy Buzek, Henna Virkkunen

**Motion for a resolution
Paragraph 9 a (new)**

Motion for a resolution

Amendment

9a. Stresses the importance of the quality of data used in development of algorithms, as the standard of the AI systems relies on the data used to train them; Notes that the use of low quality, outdated, incomplete or incorrect data may lead to poor predictions and in turn discrimination and bias, it is therefore important in the age of big data to ensure that algorithms are trained on representative sample of high quality data;

Or. en

Amendment 163

Patrizia Toia

**Motion for a resolution
Paragraph 9 a (new)**

Motion for a resolution

Amendment

9a. Notes that, for the proper

development of AI and robotics, an adequate level of high-speed connectivity needs to be ensured, for example through 5G, fibre optics and satellite navigation and communication infrastructure, in order to provide robust digital infrastructure in the industrial sector and in public services;

Or. it

Amendment 164

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 9 a (new)

Motion for a resolution

Amendment

9a. Stresses that a high level of safety, security and privacy of data used for the communication of people with robots and artificial intelligence has to be ensured; therefore calls on the Commission and Member states to integrate the security and privacy by design principles in their policies related to robotics and artificial intelligence;

Or. en

Amendment 165

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 b (new)

Motion for a resolution

Amendment

9b. Highlights that cloud computing has a key role to play in driving the uptake of AI. Stress that better access to cloud services will allow private companies, public institutions, research and academic institutions, and users to

develop and use AI in an efficient and economically viable way;

Or. en

Amendment 166
Patrizia Toia

Motion for a resolution
Paragraph 9 b (new)

Motion for a resolution

Amendment

9b. *Stresses the importance of interoperability and data accuracy in order to ensure a high level of reliability and security standards in the new technologies;*

Or. it

Amendment 167
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Paragraph 9 b (new)

Motion for a resolution

Amendment

9b. *Stresses that the integration of robotics and AI technology within the economy and the society require digital infrastructure that provides ubiquitous connectivity;*

Or. en

Amendment 168
Ashley Fox

Motion for a resolution
Paragraph 9 b (new)

Motion for a resolution

Amendment

9b. *Welcomes measures to facilitate and support the exchange and sharing of data across borders.*

Or. en

Amendment 169

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution

Paragraph 9 c (new)

Motion for a resolution

Amendment

9c. *Believes that the success of AI applications, tailored to users across the EU, often requires extensive knowledge of local markets, as well as access to and use of adequate local data for the datasets training, system testing and validation, especially in sectors related to natural language processing. Asks the Member states to encourage the availability of high quality, interoperable and open public sector as well as privately-held data;*

Or. en

Amendment 170

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 9 c (new)

Motion for a resolution

Amendment

9c. *Stresses the importance of targeted measures to ensure that small and medium-sized enterprises and start-ups are able to adopt and benefit from AI technologies; believes that impact assessments of the effects of new EU*

legislation on the technological development of AI should be mandatory, and that such impact assessments should also be considered at national level;

Or. en

Amendment 171
Ashley Fox

Motion for a resolution
Paragraph 9 c (new)

Motion for a resolution

Amendment

9c. Highlights the importance of cloud computing as a key enabler of AI. Welcomes the encouragement of access to cloud services for public and private companies to develop and use AI more effectively.

Or. en

Amendment 172
Patrizia Toia

Motion for a resolution
Paragraph 9 c (new)

Motion for a resolution

Amendment

9c. Stresses the need to ensure the utmost consistency with the EU's Big Data policy;

Or. it

Amendment 173
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 9 d (new)

Motion for a resolution

Amendment

9d. *Welcomes the establishment of the European High Performance Computing Joint Undertaking; Underlines that supercomputing and data infrastructure are essential to ensure competitive innovation ecosystem for the development of AI technologies and applications;*

Or. en

Amendment 174

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 9 d (new)

Motion for a resolution

Amendment

9d. *calls for the swift implementation of the Cybersecurity Act, the development of EU certification schemes should ensure a more resilient development and deployment of safe AI and robotic systems;*

Or. en

Amendment 175

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 9 e (new)

Motion for a resolution

Amendment

9e. *In order to foster a regulatory environment favourable to the development of AI and in line with the principle of better regulation, calls on the Commission to regularly re-evaluate the current legislation to ensure it is fit for purpose in respect of AI while respecting*

EU fundamental values, and seek to amend or substitute new proposals where this is shown not to be the case;

Or. en

Amendment 176

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution

Paragraph 9 e (new)

Motion for a resolution

Amendment

9e. Welcomes the measures to facilitate and support the exchange and sharing of data across borders, to increase flexibility and stimulate economies of scale, such as through the Free Flow of Data Regulation;

Or. en

Amendment 177

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 9 f (new)

Motion for a resolution

Amendment

9f. Welcomes the implementation of European Digital Innovation Hubs, providing access to technological expertise and experimentation facilities as well as facilitating access to finance; underlines that European Digital Innovation Hub shall be open to business of all forms and sizes, in particular to SMEs, scale-ups and public administrations across the Union;

Or. en

Amendment 178

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 f (new)

Motion for a resolution

Amendment

9f. Considers that AI at the same time can be a cybersecurity threat and the tool to fight against cyber-attacks; encourages the swift completion of the Strategy for Cybersecurity that should ensure the development and deployment of safe AI and robotic systems that are resilient to cyber-attacks; believes that ENISA should prepare an action plan on cybersecurity in the area of AI, which should assess and address threats and weaknesses specific to AI;

Or. en

Amendment 179

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 g (new)

Motion for a resolution

Amendment

9g. Underlines the importance of strengthening the industrial base as a strategic component of the secure AI development; emphasize that in order to ensure an ambitious level of cybersecurity, data protection and trusted ICT services Europe have to invest in its technological independence; stresses the urgent need for the EU to develop its own infrastructure, data centres, cloud and components such as graphics processors and chips production;

Or. en

Amendment 180

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 h (new)

Motion for a resolution

Amendment

9h. Recalls that while AI and Robotics already have long-established industrial applications, advancements in the field are expanding and providing wide and diverse applications in all human activities; believes that any regulatory framework must include flexibility that allows for innovation and free development of new technologies and uses for AI;

Or. en

Amendment 181

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 i (new)

Motion for a resolution

Amendment

9i. Underlines the importance of SME for the AI uptake; welcomes in this context the Commission initiative to create an AI on demand platform that will boost technology transfer and catalyse the growth of start-ups and SMEs. Calls on the Commission to promote Digital Innovation Hubs for the AI that do not lead to the creation of additional administration layers but focus on accelerating investments in projects that have proven their efficiency;

Or. en

Amendment 182

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 j (new)

Motion for a resolution

Amendment

9j. *Believes that AI will be a great asset in terms of implementing the “once only” principle, enabling the combination of data bases and information from different sources, and thereby facilitating citizens’ interactions with public administrations;*

Or. en

Amendment 183

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 k (new)

Motion for a resolution

Amendment

9k. *Stresses that public support for the AI should be concentrated to those strategic sectors in which EU industry has greatest opportunities to play a leading role at a global level and which has general public interest added value;*

Or. en

Amendment 184

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 9 l (new)

Motion for a resolution

Amendment

9l. *Asks the Member States to lead this digital transformation by positioning*

themselves as primary responsible users and buyers of trustworthy AI technology and thus demonstrate that AI can yield tangible benefits to citizens. Stresses that in this context Member States have to adapt their data policies including public data collection, use, repositories or annotation to allow the AI deployment in all public sector;

Or. en

Amendment 185
Dario Tamburrano

Motion for a resolution
Paragraph 10

Motion for a resolution

10. Highlights that there are a number of benefits to be gained from AI and robotics in the public sector, and welcomes greater investment into research and development to ensure that this thrives;

Amendment

10. Highlights that there are a number of benefits to be gained from AI and robotics in the public sector, and welcomes greater investment into research and development to ensure that this thrives, *as well as greater financial support to public bodies in the maintenance of the data infrastructure and the necessary training of their personnel, especially at local level;*

Or. en

Amendment 186
Eva Kaili

Motion for a resolution
Paragraph 10 a (new)

Motion for a resolution

10a. Stresses that Member States should invest also in education and AI training programs in order to assist public sector employees in adopting the use of AI

and robotics. Notes that there should be also information campaigns towards the citizens who will use public sector services provided by AI systems and robotics in order to calm their fears over loss of control of their personal data and establish trust.

Or. en

Amendment 187

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 10 a (new)

Motion for a resolution

Amendment

10a. Believes that trustworthy artificial intelligence can strongly support the reform of public administration in decision-making and improve public services, e.g. in preparing regulatory impact assessment, so its use should be further analysed and promoted;

Or. en

Amendment 188

Neoklis Sylikiotis

Motion for a resolution

Paragraph 10 a (new)

Motion for a resolution

Amendment

10a. Stresses that public sector information represent an extraordinary source of data that can contribute to rapidly progress and create a new strategy to embrace new digital technologies, especially Artificial Intelligence.

Or. en

Amendment 189

Patrizia Toia

Motion for a resolution

Paragraph 10 a (new)

Motion for a resolution

Amendment

10a. Points out that access to digital public services must be encouraged by taking measures to promote increased user knowledge, information, preparedness, and accessibility;

Or. it

Amendment 190

Ashley Fox

Motion for a resolution

Paragraph 10 a (new)

Motion for a resolution

Amendment

10a. Acknowledges the use of robotic process automation and the impact it has had in improving public sector processes, notes its interoperability with legacy systems.

Or. en

Amendment 191

Dario Tamburrano

Motion for a resolution

Paragraph 10 a (new)

Motion for a resolution

Amendment

10a. Stresses that human contact is a crucial aspect of human care;

Amendment 192

Ashley Fox

Motion for a resolution

Paragraph 10 b (new)

Motion for a resolution

Amendment

10b. Notes that public sector acceptance of AI can power the more wide-spread adoption of AI in other industries.

Or. en

Amendment 193

Ashley Fox

Motion for a resolution

Paragraph 10 c (new)

Motion for a resolution

Amendment

10c. Asks the Member States to lead this digital transformation by positioning themselves as primary responsible users and buyers of AI technology. Stresses that in this context Member States have to adapt their data policies including public data collection, use, repositories or annotation to allow the AI deployment in all public sectors.

Or. en

Amendment 194

Ashley Fox

Motion for a resolution

Paragraph 10 d (new)

10d. Data

Notes that at present, the sharing of data is well below its potential and large quantities of data are underutilised.

Recognises that there is a reluctance to share data and the need for action to encourage this. Notes that the lack of common standards also has a large role to play in the ability to share data.

Welcomes regulations such as the Free Flow of Data Regulation and the importance it has in fields such as AI to allow for more effective and efficient processes.

Recognises that greater market-based incentives need to be put in place to encourage the access to and sharing of data. Notes the risk that data openness has on investing in data in the first place.

Calls for greater clarity on data ownership rules and the legal frameworks in place. Notes that regulatory uncertainty has led to over-cautious responses from industry.

Or. en

Amendment 195

Ashley Fox

Motion for a resolution

Paragraph 10 e (new)

10e. Cyber

Notes that as artificial intelligence evolves and hackers become more sophisticated, it will be imperative to have strong cybersecurity solutions.

Recognises that implementation of AI

solutions in cybersecurity will allow for the forecasting, prevention and mitigation of threats.

Highlights that whilst AI will be able to provide greater coverage for the detection of threats, it is imperative to have the human interpretation of these threats to detect whether it is genuine or not.

SMEs

Recognises the importance of SMEs for the success of AI. Welcomes the Commission initiative to create an AI on demand platform that will boost technology transfer and catalyse the growth of start-ups and SMEs. Calls on the Commission to promote Digital Innovation Hubs for AI that do not lead to the creation of additional administration layers but focus on accelerating investments in projects that have proven their efficiency.

Notes that the costs of investing in AI leads to high barriers to entry for SMEs. Recognises that widespread adoption of AI by consumers would de-risk this investment for SMEs.

Highlights the need to promote the adoption of AI by SMEs just as much as the promotion of consumers to use it.

Or. en

Amendment 196

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 11

Motion for a resolution

11. Notes the impact that AI has already had on *designing personalised treatments and predicting heart attacks*;

Amendment

11. Notes the impact that AI has already had on *wellness, prevention, diagnoses, research and its great potential for providing personalized care. This*

ultimately leads to a more sustainable, efficient and outcome-based health care ecosystem;

Or. en

Amendment 197

Eva Kaili

Motion for a resolution

Paragraph 11

Motion for a resolution

11. Notes the impact that AI has already had on *designing* personalised treatments and predicting heart attacks;

Amendment

11. Notes the impact that AI has already had on *the design of* personalised treatments and *on* predicting heart attacks; *as well as other health issues such as epileptic seizures.*

Or. en

Amendment 198

Eva Kaili

Motion for a resolution

Paragraph 12

Motion for a resolution

12. Notes that when AI is combined with human diagnosis the error rate *is 0.5^o %, compared with 3.5^o % for diagnosis by* human doctors alone;

Amendment

12. Notes that when AI is combined with human diagnosis the error rate *tends to be significantly lower than when with* human doctors alone;

Or. en

Amendment 199

Isabella De Monte

Motion for a resolution

Paragraph 12

Motion for a resolution

12. Notes that when AI is combined with human diagnosis the error rate is 0.5⁰%, compared with 3.5⁰% for diagnosis by human doctors alone;

Amendment

12. Notes that when AI is combined with human diagnosis the error rate is 0.5⁰%, compared with 3.5⁰% for diagnosis by human doctors alone; ***points out that it would be advisable to assess whether or not certain diagnoses carried out by machines using AI could be legally recognised;***

Or. it

Amendment 200

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Jerzy Buzek

Motion for a resolution

Paragraph 12 a (new)

Motion for a resolution

Amendment

12a. Calls on Commission to work on strategies and policies that can position the EU as a world-leader in the growing field of health care technology, while ensuring that patients have access to seamless and effective medical care;

Or. en

Amendment 201

Patrizia Toia

Motion for a resolution

Paragraph 13 a (new)

Motion for a resolution

Amendment

13a. Promotes the contribution made by AI and robotics to innovative preventive, clinical and rehabilitation practices and techniques in the health sector, with particular reference to the benefits they have for patients with disabilities;

Amendment 202

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Jerzy Buzek

Motion for a resolution

Paragraph 13 a (new)

Motion for a resolution

Amendment

13a. Acknowledge the potential of AI in reaching the goal of the carbon free energy sector; stresses that with more digitised energy sector energy networks become larger and more exposed to cyber threat; Calls the Member states and the Commission accompany the energy digital transformation with the measures, such as artificial intelligence, improving cyber security;

Or. en

Amendment 203

Dario Tamburrano

Motion for a resolution

Paragraph 14

Motion for a resolution

Amendment

14. Notes that AI allows energy suppliers to move from preventive to predictive asset maintenance, owing to the large amount of data that can be processed; stresses that this will allow providers to deal with issues in a more timely manner;

14. Notes that AI allows energy suppliers to move from preventive to predictive asset maintenance, owing to the large amount of data that can be processed; stresses that this will allow providers to deal with issues in a more timely manner; ***also stresses that enhanced predicting can be particularly beneficial to renewable energy production, by improving its reliability and by allowing the most efficient locations for new installations, thus ensuring a better demand response management;***

Amendment 204
Dario Tamburrano

Motion for a resolution
Paragraph 14 a (new)

Motion for a resolution

Amendment

14a. Recognises that more accurate data produced by AI on the potential of renewable energy production will create higher investment certainty for businesses and individuals, thus accelerating the energy transition towards renewable energy sources and contributing to the Union's long term strategy for a climate neutral economy;

Or. en

Amendment 205
Eva Kaili

Motion for a resolution
Subheading 14 a (new)

Motion for a resolution

Amendment

Calls on the Commission to oblige the online intermediation service companies to release any data that could be beneficial to the common good, while ensuring that insurance companies will be forbidden to discriminate on citizens based on AI ranking results and from their right to be insured.

Or. en

Amendment 206
Eva Kaili

Motion for a resolution
Subheading 14 b (new)

Motion for a resolution

Amendment

Urges the Commission to take note of the social challenges arising from practices resulting from the ranking of citizens. Citizens should not be discriminated based on their ranking and they should be entitled to "another chance".

Or. en

Amendment 207
Dario Tamburrano

Motion for a resolution
Paragraph 15

Motion for a resolution

Amendment

15. Notes that solutions involving sensors are already being used to manage energy usage in houses and that this has resulted in considerable *consumer* savings;

15. Notes that solutions involving sensors are already being used to manage energy usage in houses and that this has resulted in considerable *energy and monetary* savings;

Or. en

Amendment 208
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Paragraph 16

Motion for a resolution

Amendment

16. *Notes that* AI and robotics *have the ability* to greatly improve our transport links through the introduction of driverless trains and motor vehicles; *welcomes greater* research and investment in this area to ensure its safe and effective

16. *Welcomes the ability of* AI and robotics to greatly improve our transport links through the introduction of driverless trains and motor vehicles; *calls for more* research and investment in this area to ensure its safe and effective development;

development;

highlights the tremendous opportunities for both larger tech companies and small and medium size enterprises;

Or. en

Amendment 209
Dario Tamburrano

Motion for a resolution
Paragraph 16

Motion for a resolution

16. Notes that AI and robotics have the ability to greatly improve our transport links through the introduction of *driverless* trains and motor vehicles; welcomes greater research and investment in this area to ensure its safe and effective development;

Amendment

16. Notes that AI and robotics have the ability to greatly improve our transport links through the introduction of *autonomous* trains and motor vehicles; welcomes greater research and investment in this area to ensure its safe and effective development;

Or. en

Amendment 210
Eva Kaili

Motion for a resolution
Subheading 16 a (new)

Motion for a resolution

Amendment

Calls on the European Commission to guarantee the protection of citizens from any AI ranking decision systems in public administrations, similar to those planned to be utilised in China.

Or. en

Amendment 211
Eva Kaili

Motion for a resolution
Subheading 16 b (new)

Motion for a resolution

Amendment

Calls on the Commission to ensure that whoever produces deepfake material or synthetic videos or any other realistically made synthetic videos to state explicitly that they are not original.

Or. en

Amendment 212
Dario Tamburrano

Motion for a resolution
Paragraph 17

Motion for a resolution

Amendment

17. Notes that by reducing human error in the transport sector the system can become more efficient, with fewer accidents, ***thanks to greater clarity in judgement and the predictive nature of the technology***, fewer delays, ***with the ability to map traffic patterns and run services on schedule***, and greater savings, ***with fewer driver-related faults and streamlined internal processes***;

17. Notes that by reducing human error in the transport sector the system can ***potentially*** become more efficient, with fewer accidents, fewer delays and greater savings;

Or. en

Amendment 213
Algirdas Saudargas

Motion for a resolution
Paragraph 17

Motion for a resolution

Amendment

17. Notes that by reducing human error in the transport sector the system can become more efficient, with fewer

17. Notes that by reducing human error in the transport sector the system can become more efficient, with fewer

accidents, *thanks to greater clarity in judgement and the predictive nature of the technology*, fewer delays, with the ability to map traffic patterns and run services on schedule, and greater savings, with fewer driver-related faults and streamlined internal processes;

accidents, fewer delays, with the ability to map traffic patterns and run services on schedule, and greater savings, with fewer driver-related faults and streamlined internal processes;

Or. en

Amendment 214

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 17 a (new)

Motion for a resolution

Amendment

17a. Notes that voice communication is increasingly used in interaction with vehicles and transport systems but these features are only available for a handful of European languages, so it should be ensured that all Europeans can use these possibilities in their mother tongue;

Or. en

Amendment 215

Eva Kaili

Motion for a resolution

Paragraph 17 a (new)

Motion for a resolution

Amendment

17a. Encourages the completion of the European Commission's strategy for Cybersecurity, and suggests to embed capacity-building in cybersecurity in this industrial policy, to ensure the development and deployment of safe AI and Robotic systems, resilient to cyberattacks. Encourages European stakeholders to research and engineers

features that would facilitate the detection of accidentally or maliciously corrupted AI & Robotics systems.

Or. en

Amendment 216
Eva Kaili

Motion for a resolution
Paragraph 17 b (new)

Motion for a resolution

Amendment

17b. Calls on the Commission to explore the use of blockchain based cybersecurity applications that improve the resilience, trust and robustness of AI infrastructures through disintermediated models of data encryption. Calls on the Commission to explore the possibility to reward citizens for their data through tokens.

Or. en

Amendment 217
Eva Kaili

Motion for a resolution
Paragraph 17 c (new)

Motion for a resolution

Amendment

17c. Notes the ongoing work of the ISO on AI and urges the Member States to coordinate their ISO members to defend as best as possible the European values and interests in the development of standards.

Or. en

Amendment 218
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 18

Motion for a resolution

Amendment

18. *Notes that the prevalence of autonomous vehicles in the future will shift the liability from the driver to the vehicle, requiring insurance companies to shift how they incorporate risk into their underwriting;*

deleted

Or. en

Amendment 219
Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution
Paragraph 18

Motion for a resolution

Amendment

18. Notes that the prevalence of autonomous vehicles in the future will shift the liability from the driver to the vehicle, requiring insurance companies to shift how they incorporate risk into their underwriting;

18. Notes that the prevalence of autonomous vehicles in the future *poses risks to data privacy and technical failures and* will shift the liability from the driver to the vehicle, requiring insurance companies to shift how they incorporate risk into their underwriting;

Or. en

Amendment 220
Eva Kaili

Motion for a resolution
Paragraph 18

Motion for a resolution

Amendment

18. Notes that the prevalence of

18. Notes that the prevalence of

autonomous vehicles in the future will shift the liability from the driver to the **vehicle**, **requiring** insurance companies **to shift** how they incorporate risk into their underwriting;

autonomous vehicles in the future will shift the liability from the driver to the **automaker**, **so governments will need to adjust legal definitions of liability and** insurance companies how they incorporate risk into their underwriting;

Or. en

Amendment 221
Isabella De Monte

Motion for a resolution
Paragraph 18

Motion for a resolution

18. Notes that the prevalence of autonomous vehicles in the future will **shift the liability from the driver to the vehicle**, **requiring** insurance companies to **shift** how they incorporate risk into their underwriting;

Amendment

18. Notes that the prevalence of autonomous vehicles in the future will **require** insurance companies to **reorganise** how they incorporate risk into their underwriting;

Or. it

Amendment 222
Ashley Fox

Motion for a resolution
Paragraph 18

Motion for a resolution

18. Notes that the prevalence of autonomous vehicles in the future will shift the liability from the driver to the **vehicle**, requiring insurance companies to shift how they incorporate risk into their underwriting;

Amendment

18. Notes that the prevalence of autonomous vehicles in the future will shift the liability from the driver to the **manufacturer**, requiring insurance companies to shift how they incorporate risk into their underwriting;

Or. en

Amendment 223

Eva Kaili

Motion for a resolution

Paragraph 19

Motion for a resolution

19. Notes the work being conducted globally and recognises the need to work proactively with partners in shaping the direction this industry moves in to ensure that the EU remains competitive;

Amendment

19. Notes the work being conducted globally and recognises the need to work proactively with partners *especially at OECD and G20*, in shaping the direction this industry moves in to ensure that the EU remains competitive *and safeguards equal access among nations as well as sharing the benefits of AI development as widely as possible*;

Or. en

Amendment 224

Dario Tamburrano

Motion for a resolution

Paragraph 19 a (new)

Motion for a resolution

Amendment

19a. Notes with concern that a number of non-European companies and entities from third countries increasingly employ AI-based predictive models to provide services and extract the added value on EU markets, especially at local level, and to monitor and possibly influence political sentiment, thus posing potential threats to the technological sovereignty of Union citizens;

Or. en

Amendment 225

Eva Kaili

Motion for a resolution
Paragraph 20

Motion for a resolution

20. Believes that AI needs to be governed by a code of ethics in the same way that human behaviour is guided; recognises that in order to do this, rules must be in place to increase the accountability and transparency of algorithmic decision-making systems;

Amendment

20. Believes that ***the development and use of*** AI needs to be governed by a code of ethics in the same way that human behaviour is guided; recognises that in order to do this, rules must be in place to increase the accountability and transparency of algorithmic decision-making systems;

Or. en

Amendment 226
Patrizia Toia

Motion for a resolution
Paragraph 20

Motion for a resolution

20. Believes that AI needs to be governed by a code of ethics in the same way that human behaviour is guided; recognises that in order to do this, rules must be in place to increase the accountability and ***transparency*** of algorithmic decision-making systems;

Amendment

20. Believes that AI needs to be governed by a code of ethics in the same way that human behaviour is guided; recognises that in order to do this, rules must be in place to increase the accountability, ***transparency, impartiality and fairness*** of algorithmic decision-making systems;

Or. it

Amendment 227
Ashley Fox

Motion for a resolution
Paragraph 20

Motion for a resolution

20. ***Believes that AI needs to be governed by a code of ethics in the same***

Amendment

20. ***Stresses that ethical*** rules must be in place to ***ensure human centric AI***

way that human behaviour is guided; recognises that in order to do this, rules must be in place to *increase* the accountability and transparency of algorithmic decision-making systems;

development, the accountability and transparency of algorithmic decision-making systems, *clear liability rules and fairness*;

Or. en

Amendment 228

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 20

Motion for a resolution

20. *Believes that AI needs to be governed by a code of ethics in the same way that human behaviour is guided; recognises that in order to do this*, rules must be in place to *increase* the accountability and transparency of algorithmic decision-making systems;

Amendment

20. *Stresses that ethical* rules must be in place to *ensure the human centric AI development*, the accountability, *explainability* and transparency of algorithmic decision-making systems, *clear liability rules and fairness*;

Or. en

Amendment 229

Isabella De Monte

Motion for a resolution

Paragraph 20

Motion for a resolution

20. Believes that AI needs to be governed by a code of ethics *in the same way that human behaviour is guided*; recognises that in order to do this, rules must be in place to increase the accountability and transparency of algorithmic decision-making systems;

Amendment

20. Believes that AI needs to be governed by a code of ethics; recognises that in order to do this, rules must be in place to increase the accountability and transparency of algorithmic decision-making systems *that are a result of human intervention*;

Or. it

Amendment 230

Ashley Fox

Motion for a resolution

Paragraph 20 a (new)

Motion for a resolution

Amendment

20a. Welcomes the Commission initiative to set-up the High-level experts group on Artificial Intelligence as well as EU AI alliance network with the aim to deliver ethical guidelines for AI. Asks the Commission to ensure the largest possible up take of those ethical guidelines by the industry, academia and public authorities. Recommends that Member States transfer the guidelines into their national AI strategies and develop real accountability structures for industries and governments as they design and deploy AI.

Or. en

Amendment 231

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 20 a (new)

Motion for a resolution

Amendment

20a. Underlines that AI must be designed, developed and deployed so as to be consistent with the obligations of the European Union towards its citizens. The Commission High Level Expert group on Artificial Intelligence is a good start in finding possible paths to follow and proper ethical assessment mechanisms need to be put in place before any financing is awarded for such research.

Or. en

Amendment 232

Patrizia Toia

Motion for a resolution

Paragraph 20 a (new)

Motion for a resolution

Amendment

20a. *Notes the importance of incorporating into each AI and robotics research and development project or activity the study resulting from the application of the robethics roadmap to technological solutions;*

Or. it

Amendment 233

Eva Kaili

Motion for a resolution

Paragraph 20 a (new)

Motion for a resolution

Amendment

20a. *Considers it essential for the Union to develop a regulatory framework based on ethical principles in line with the complexity of AI and its many social, medical and bioethical implications;*

Or. en

Amendment 234

Eva Kaili

Motion for a resolution

Paragraph 20 b (new)

Motion for a resolution

Amendment

20b. *Points out that the guiding ethical framework should be based on the principles of beneficence, non-maleficence, autonomy and justice, on the*

principles and values enshrined in Article 2 of the Treaty on European Union and in the Charter of Fundamental Rights, such as human dignity, equality, justice and equity, non-discrimination, informed consent, private and family life and data protection, as well as on other underlying principles and values of the Union law, such as non-stigmatisation, transparency, autonomy, individual responsibility and social responsibility, and on existing ethical practices and codes;

Or. en

Amendment 235

Reinhard Bütikofer

on behalf of the Verts/ALE Group

Motion for a resolution

Paragraph 20 b (new)

Motion for a resolution

Amendment

20b. *Notes that AI inherently relies on gathering large amounts of data, and often on the creation of new databases that are used to make assumptions about people. Emphasis should be placed on identifying and building response mechanisms for potential threats to ensure mitigation of negative effects.*

Or. en

Amendment 236

Eva Kaili

Motion for a resolution

Paragraph 20 c (new)

Motion for a resolution

Amendment

20c. *Stresses the importance, as regards to ethical standards, of ensuring that AI*

products respect the fundamental rights of individuals and society, which should be protected at Union level, by providing for any necessary technical measures which ensure such respect from the design stage, in accordance with the so-called privacy by design approach;

Or. en

Amendment 237
Ashley Fox

Motion for a resolution
Paragraph 21

Motion for a resolution

Amendment

21. *Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow;* *deleted*

Or. en

Amendment 238
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 21

Motion for a resolution

Amendment

21. *Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow;*

21. *Welcomes the Commission initiative to set the High-level experts group on Artificial intelligence as well as EU AI alliance network with the aim to deliver ethical guidelines for the AI. Ask the Commission to ensure the largest possible up take of those ethical guidelines by the industry, academia and public authorities. Believes that the point of departure for any guideline must be a human centric approach to AI. Recommends to the Member states to*

transfer the guidelines into their national AI strategies and develop real accountability structures for industries and governments as they design and deploy AI;

Or. en

Amendment 239

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 21

Motion for a resolution

21. *Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow;*

Amendment

21. *Believes that Artificial intelligences actions and applications shall comply with ethical principles and relevant national, Union and international laws, including the Charter of Fundamental Rights of the European Union and the European Convention of Human Rights and the Protocol thereto; therefore awaits the publication of the recommendations of the High-Level Expert Group on Artificial Intelligence on ethical issues;*

Or. en

Amendment 240

Eva Kaili

Motion for a resolution

Paragraph 21

Motion for a resolution

21. *Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow;*

Amendment

21. *Welcomes the work of the European Commission high level expert group on AI and supports the development of an ethical charter of best practice for AI and robotics that AI developers, vendors and distributors*

should follow;

Or. en

Amendment 241
Dario Tamburrano

Motion for a resolution
Paragraph 21

Motion for a resolution

21. Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow;

Amendment

21. Calls for the creation of an ethical charter of best practice for AI and robotics that companies and experts should follow, ***including the principles enshrined in the Charter on Robotics annexed to its resolution of 16 February 2017 with recommendations to the Commission on Civil Law on Robotics;***

Or. en

Amendment 242
Patrizia Toia

Motion for a resolution
Paragraph 21

Motion for a resolution

21. Calls for the creation of an ethical charter of best practice for AI and robotics ***that*** companies and experts should follow;

Amendment

21. Calls for the creation of an ethical charter of ***the*** best practice for AI and robotics ***hitherto developed, especially in the private sector, which*** companies and experts should follow;

Or. it

Amendment 243
Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 21 a (new)

Motion for a resolution

Amendment

21a. *Considers that continuous follow up of the AI ethical guidelines implementation and impact to the development of the human centric AI is essential. Ask the Commission to analyse if the voluntary ethical guidelines are sufficient to ensure the inclusive ethically embedded uptake of AI that do not generate economic and social divides in EU societies and suggest if needed regulatory and policy measures;*

Or. en

Amendment 244
Neoklis Sylikiotis

Motion for a resolution
Paragraph 21 a (new)

Motion for a resolution

Amendment

21a. *Ensure that any future legal framework for artificial intelligence and robotics shall also develop consistent rules on liability in the field of penal law and war crimes, in order to avoid crimes without criminal accountability.*

Or. en

Amendment 245
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 21 b (new)

Motion for a resolution

Amendment

21b. *Believes that Europe should lead*

worldwide by deploying only ethically embedded AI; underlines that to achieve this there is a need to ensure the governance of ethics in AI at different levels; recommends the Member States to instate AI ethics monitoring and oversight bodies and encourage companies developing AI to establish ethics board and elaborate ethical guides for their AI developers;

Or. en

Amendment 246

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera, Henna Virkkunen

Motion for a resolution

Paragraph 21 c (new)

Motion for a resolution

Amendment

21c. Stresses that European standards for AI must be based on the principles of digital ethics, human dignity, respect of fundamental rights, data protection and security, thus contributing to building trust among users; emphasises the importance of capitalising on the EU's potential for creating a strong infrastructure for AI systems rooted in high standards of data and respect for humans; Notes that, in the development of AI principle, transparency and the explainability need to be embedded;

Or. en

Amendment 247

Dario Tamburrano

Motion for a resolution

Paragraph 22

Motion for a resolution

22. Notes that AI ***will not be flawless but will remain*** a useful tool as long as fewer errors are made than when the same decisions are made by humans;

Amendment

22. Notes that AI ***can be*** a useful tool as long as fewer errors are made than when the same decisions are made by humans; ***highlights that artificial intelligence lacks the features of common sense, intentionality, feelings and emotions that enable human beings to understand, contextualize, share goals and feel empathy, being emotional intelligence a key aspect of decision-making; stresses that safeguards and the possibility of human control and verification thus need to be built by default into processes of automated and algorithmic decision-making;***

Or. en

Amendment 248

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 22

Motion for a resolution

22. ***Notes that AI will not be flawless but will remain a useful tool as long as fewer errors are made than when the same decisions are made by humans;***

Amendment

22. ***Stresses the difficulty and the complexity to predict the future behaviours of many complex AI systems and the emerging behaviours of interacting AI systems; ask the Commission to evaluate if there is a need for the specific regulations related to AI-enabled decision-making;***

Or. en

Amendment 249

Isabella De Monte

Motion for a resolution

Paragraph 22

Motion for a resolution

22. Notes that AI will not be flawless but will remain a useful tool *as long as fewer errors are made than when the same decisions are made by humans*;

Amendment

22. Notes that AI will not be flawless but will remain a useful tool *for collaborating in human action to improve the latter's performance and reduce errors*;

Or. it

Amendment 250

Ashley Fox

Motion for a resolution

Paragraph 22 a (new)

Motion for a resolution

22a. Stresses the difficulty and the complexity to predict the future behaviours of many complex AI systems and the emerging behaviours of interacting AI systems; ask the Commission to evaluate if there is a need for the specific regulations related to AI-enabled decision-making.

Or. en

Amendment 251

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 23

Motion for a resolution

23. *Highlights the need for a regulatory distinction between mistakes that arise from malfeasance and those that arise from innovative practices*;

Amendment

deleted

Or. en

Amendment 252

Eva Kaili

Motion for a resolution

Paragraph 23

Motion for a resolution

23. Highlights the need for a regulatory distinction between mistakes that arise from malfeasance and those that arise from innovative practices;

Amendment

23. Highlights *the importance of the purpose and intent in the application of AI and* the need for a regulatory distinction between mistakes that arise from malfeasance and those that arise from innovative practices;

Or. en

Amendment 253

Ashley Fox

Motion for a resolution

Paragraph 23

Motion for a resolution

23. Highlights the need for a regulatory distinction between mistakes that arise from *malfeasance and those that arise from innovative practices*;

Amendment

23. Highlights the need for a regulatory distinction between mistakes that arise from *malice and unintentional mistakes*;

Or. en

Amendment 254

Neoklis Sylikiotis

Motion for a resolution

Paragraph 23 a (new)

Motion for a resolution

Amendment

23a. Notes that in order to implement a socially balanced framework on artificial intelligence and robotics that allows the

development of European industries without mass destruction of jobs, social partners have to be involved and considered at EU, Member States and industry level.

Or. en

Amendment 255

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 24

Motion for a resolution

24. *Calls for people to have a right of appeal when AI is used **for** decisions affecting individuals;*

Amendment

24. *Considers that autonomy of human beings in the context of AI development should be ensured by full and effective self-determination over themselves, including the right **for** appeal when AI is used **on** decisions affecting individuals, **which carry a significant risk for individuals' rights and freedoms or may result to harm;***

Or. en

Amendment 256

Ashley Fox

Motion for a resolution

Paragraph 24

Motion for a resolution

24. *Calls for people to have a right of appeal when AI is used for decisions affecting individuals;*

Amendment

24. *Calls for people to have a right of appeal when AI is used for decisions affecting individuals, **which carry a significant risk for an individuals' rights or freedom or may cause them harm;***

Or. en

Amendment 257

Eva Kaili

Motion for a resolution

Paragraph 24

Motion for a resolution

24. Calls for people to have a right of appeal when AI is used for decisions affecting individuals;

Amendment

24. Calls for people to have a right of appeal when AI is used for decisions affecting individuals *especially in sensitive applications*;

Or. en

Amendment 258

Dario Tamburrano

Motion for a resolution

Paragraph 24

Motion for a resolution

24. Calls for people to have a right of appeal when AI is used for decisions affecting individuals;

Amendment

24. Calls for people to have a right of appeal when AI is used for decisions affecting individuals, *and of redress in case of damage*;

Or. en

Amendment 259

Patrizia Toia

Motion for a resolution

Paragraph 24 a (new)

Motion for a resolution

Amendment

24a. Stresses the importance of addressing the issue of civil liability and social responsibility in all fields;

Or. it

Amendment 260

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 24 a (new)

Motion for a resolution

Amendment

24a. Reiterates that AI systems should not create or reinforce bias; underlines that when developing and using algorithms considerations around bias and fairness must be included at all stages from the design to implementation phase. The data set and the algorithm must be assessed and regularly tested to ensure the decision-making is accurate;

Or. en

Amendment 261

Patrizia Toia

Motion for a resolution

Paragraph 25

Motion for a resolution

Amendment

25. Points out that while AI brings great benefits in automation and decision-making, it also carries an inherent risk when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms;

25. Points out that while AI brings great benefits in automation and decision-making, it also carries an inherent risk when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms ***in compliance with the principles of equality, transparency and confidentiality;***

Or. it

Amendment 262

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 25

Motion for a resolution

25. *Points out that while AI brings great benefits in automation and decision-making, it also carries an inherent risk when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms;*

Amendment

25. *Acknowledges that machine learning algorithms are trained to learn by themselves without being programmed, benefiting to automation and decision-making; calls for AI ethics guidelines to address issues related to algorithmic transparency, accountability and fairness;*

Or. en

Amendment 263

Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 25

Motion for a resolution

25. Points out that *while* AI brings great benefits in automation and *decision-making*, it also carries an inherent *risk when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms;*

Amendment

25. Points out that *whilst* AI brings great benefits in automation and *decision-making*, it also carries an inherent *uncertainty about its usage. This needs to be guarded against through greater transparency and explainability of AI systems;*

Or. en

Amendment 264

Ashley Fox

Motion for a resolution

Paragraph 25

Motion for a resolution

25. Points out *that while* AI brings great benefits in automation and decision-making, *it* also carries *an inherent risk* when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms;

Amendment

25. Points out AI brings great benefits in automation and decision-making *but* also carries *risks* when the algorithms are static and opaque; stresses, in this context, the need for greater transparency of algorithms;

Amendment 265

Eva Kaili

Motion for a resolution

Paragraph 25 a (new)

Motion for a resolution

Amendment

25a. Highlights the importance of the explainability of outputs of the algorithms making them understandable by non-technical audiences, which is necessary to evaluate fairness and gain trust.

Or. en

Amendment 266

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 25 a (new)

Motion for a resolution

Amendment

25a. Highlights that transparency and explainability should be users centred and provide meaningful information about the values, processes and outcomes;

Or. en

Amendment 267

Dario Tamburrano

Motion for a resolution

Paragraph 26

Motion for a resolution

Amendment

26. Points out that the lack of transparency of these technologies raises a

26. Points out that the lack of transparency of these technologies raises a

number of ethical issues;

number of *issues in terms of perpetuation of bias against the more vulnerable, including gender and cultural prejudices, as well as privacy concerns, safety and responsibility and* ethical issues;

Or. en

Amendment 268

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 26

Motion for a resolution

26. Points out that the lack of transparency of these technologies raises a number of ethical issues;

Amendment

26. Points out that the lack of transparency of these technologies *and their applications* raises a number of ethical issues *including human dignity, safety and right to privacy*;

Or. en

Amendment 269

Eva Kaili

Motion for a resolution

Paragraph 26

Motion for a resolution

26. Points out that the lack of transparency of *these* technologies *raises a number of ethical issues*;

Amendment

26. Points out that *specific ethical issues are raised by* the lack of transparency of *AI* technologies *in particular deep learning and reinforcement learning techniques*;

Or. en

Amendment 270

Ashley Fox

Motion for a resolution
Paragraph 26 a (new)

Motion for a resolution

Amendment

26a. *Notes that AI systems should be accountable to humans and AI systems should provide meaningful information so that feedback can be given; recognises that the strength of AI models is dependent on feedback and reassessment and encourages this process.*

Or. en

Amendment 271
Ashley Fox

Motion for a resolution
Paragraph 26 b (new)

Motion for a resolution

Amendment

26b. *Notes that transparency should be proportionate to the product or services purpose and context;*

Or. en

Amendment 272
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 27

Motion for a resolution

Amendment

27. *Considers that algorithmic accountability should fall on the operator and be regulated by policy-makers through impact assessments based on established parameters;*

deleted

Or. en

Amendment 273
Ashley Fox

Motion for a resolution
Paragraph 27

Motion for a resolution

27. Considers that algorithmic accountability should fall on the operator and be regulated by policy-makers through impact assessments based on established parameters;

Amendment

27. Considers that algorithmic accountability should fall on the operator **or provider** and be regulated by policy-makers through impact assessments based on established parameters;

Or. en

Amendment 274
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 27

Motion for a resolution

27. ***Considers that algorithmic accountability should fall on the operator and be regulated by policy-makers through impact assessments based on established parameters;***

Amendment

27. ***Underlines that transparency and clear rules is a precondition to the accountability that should fall on the operator or the provider of the algorithmic decision systems;***

Or. en

Amendment 275
Patrizia Toia

Motion for a resolution
Paragraph 28

Motion for a resolution

28. ***Notes that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that***

deleted

Amendment

exist and would fail to explain the machine-learning process; cites as an example of this Google's 'PageRank' algorithm, which enabled website owners to manipulate their pages with hidden content that would be interpreted as desirable in order to increase views;

Or. it

Amendment 276
Patrizia Toia

Motion for a resolution
Paragraph 28

Motion for a resolution

28. Notes *that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that exist and would fail to explain the machine-learning process; cites as an example of this Google's 'PageRank' algorithm, which enabled website owners to manipulate their pages with hidden content that would be interpreted as desirable in order to increase views;*

Amendment

28. Notes *the need for a balance between open source and copyright in the disclosure of the computer code, which should not discourage companies from carrying out research and development activities, but at the same time should highlight the need for transparency as regards inherent biases and should take account of the characteristics of the new digital business models;*

Or. it

Amendment 277
Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 28

Motion for a resolution

28. Notes that *disclosing the computer code itself would be ineffective* because it would not reveal the inherent biases that exist *and would fail* to explain the machine-learning process; *cites as an example of this Google's 'PageRank'*

Amendment

28. Notes that *open* code itself *will not solve the AI transparency issue*, because it would not reveal the inherent biases that exist, *and it fails* to explain the machine-learning process; *underlines that we have to seek to understand the behaviour of*

algorithm, *which enabled website owners to manipulate their pages with hidden content that would be interpreted as desirable in order to increase views;*

algorithm *leading to a decision and this can be achieved through algorithm design itself, appropriate and comprehensive user information, internal and external audits, certification;*

Or. en

Amendment 278

Eva Kaili

Motion for a resolution

Paragraph 28

Motion for a resolution

28. Notes that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that exist and would fail to explain the machine-learning process; *cites as an example of this Google's 'PageRank' algorithm, which enabled website owners to manipulate their pages with hidden content that would be interpreted as desirable in order to increase views;*

Amendment

28. Notes that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that exist and would fail to explain the machine-learning process;

Or. en

Amendment 279

Ashley Fox

Motion for a resolution

Paragraph 28

Motion for a resolution

28. Notes that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that exist and would fail to explain the machine-learning process; *cites as an example of this Google's 'PageRank' algorithm, which enabled website owners to manipulate their pages with hidden*

Amendment

28. Notes that disclosing the computer code itself would be ineffective because it would not reveal the inherent biases that exist and would fail to explain the machine-learning process;

content that would be interpreted as desirable in order to increase views;

Or. en

Amendment 280
Patrizia Toia

Motion for a resolution
Paragraph 28

Motion for a resolution

28. Notes that disclosing the computer code itself would be *ineffective* because it would *not* reveal the inherent biases that exist *and* would *fail to explain the machine-learning process; cites as an example of this Google's 'PageRank' algorithm, which enabled website owners to manipulate their pages with hidden content that would be interpreted as desirable in order to increase views;*

Amendment

28. Notes that disclosing the computer code itself *and the characteristics of the database* would be *effective* because it would reveal the inherent biases that exist, would *clarify any discrimination or exclusion and* would *explain the machine-learning process;*

Or. it

Amendment 281
Ashley Fox

Motion for a resolution
Paragraph 28 a (new)

Motion for a resolution

28a. Acknowledges that the transparency of source code could lead to misuse and the gaming of algorithms.

Or. en

Amendment 282
Algirdas Saudargas, Michal Boni, Pilar del Castillo Vera

Motion for a resolution
Paragraph 29

Motion for a resolution

29. Acknowledges that revealing the code would also discourage companies from R&D of new code, since their intellectual property would be at risk;

Amendment

29. Acknowledges that revealing the code *or trade secrets* would also discourage companies from R&D of new code since their intellectual property would be at risk; *notes that development of AI should encourage instead for the interpretability of models and their interaction with the input and training data;*

Or. en

Amendment 283
Eva Kaili

Motion for a resolution
Paragraph 29 a (new)

Motion for a resolution

Amendment

29a. Stresses the need for the development of protocols for the on-going monitoring and detection of algorithmic bias; Points out that designers of algorithms should be trained and accompanied in order to consider essential requirements such as fairness or explainability from the beginning of the design phase and throughout the development cycle;

Or. en

Amendment 284
Neoklis Sylikiotis

Motion for a resolution
Paragraph 29 a (new)

Motion for a resolution

Amendment

29a. *Notes that although transparency may allow for the discovery of deficiencies, they do not guarantee the reliability, security and fairness of an ADS; therefore, accountability is the most important requirement that can be achieved via different means such as algorithm impact assessments (AIA), auditing and certification.*

Or. en

Amendment 285
Ashley Fox

Motion for a resolution
Paragraph 29 a (new)

Motion for a resolution

Amendment

29a. *Stresses the need for the development of protocols for the on-going monitoring and detection of algorithmic bias;*

Or. en

Amendment 286
Eva Kaili

Motion for a resolution
Paragraph 29 b (new)

Motion for a resolution

Amendment

29b. *Acknowledges that although transparency and explainability may allow for the discovery of deficiencies, they do not guarantee the reliability, security and fairness of an ADS; therefore, accountability is the most important requirement that can be*

achieved via different means such as algorithm impact assessments (AIA), auditing and certification.

Or. en

Amendment 287
Neoklis Sylikiotis

Motion for a resolution
Paragraph 29 b (new)

Motion for a resolution

Amendment

29b. *Stresses that algorithm misused in decision-making systems should not be deployed without a prior Algorithmic Impact Assessment (AIA) unless it is clear that they have no significant impact on the life of individuals;*

Or. en

Amendment 288
Ashley Fox

Motion for a resolution
Paragraph 29 b (new)

Motion for a resolution

Amendment

29b. *Points out that designers of algorithms should ensure that essential requirements such as fairness or explainability from the beginning of the design phase and throughout the development cycle are adhered to;*

Or. en

Amendment 289
Eva Kaili

Motion for a resolution
Paragraph 29 c (new)

Motion for a resolution

Amendment

29c. *Stresses that algorithms used in decision-making systems should not be deployed without a prior Algorithmic Impact Assessment (AIA) unless it is clear that they have no significant impact on the life of individuals; the certification of algorithmic decision-making systems should be encouraged and even mandatory in certain sectors.*

Or. en

Amendment 290
Ashley Fox

Motion for a resolution
Paragraph 29 c (new)

Motion for a resolution

Amendment

29c. *Notes the need for developing guidelines describing good development practices;*

Or. en

Amendment 291
Ashley Fox

Motion for a resolution
Paragraph 29 d (new)

Motion for a resolution

Amendment

29d. *Acknowledges that although transparency and explainability may allow for the discovery of deficiencies, they do not guarantee the reliability, security and fairness; therefore, accountability is the most important*

requirement.

Or. en

Amendment 292

Eva Kaili

Motion for a resolution

Paragraph 29 d (new)

Motion for a resolution

Amendment

29d. *Highlights the principle of transparency, namely that it should always be possible to supply the rationale behind any decision taken with the aid of AI that can have a substantive impact on one or more persons' lives;*

Or. en

Amendment 293

Eva Kaili

Motion for a resolution

Paragraph 29 e (new)

Motion for a resolution

Amendment

29e. *Considers that it must always be possible to reduce the AI system's computations to a form comprehensible by humans; considers that AI products should be equipped with a 'black box' which records data on every transaction carried out by the machine, -including the logic that contributed to its decisions - as well as with a "switch-off" button which would instantly deactivate the AI system after requested by a human.*

Or. en

Amendment 294

Ashley Fox

Motion for a resolution

Paragraph 29 e (new)

Motion for a resolution

Amendment

29e. *Stresses the importance of showing lineage to be able to trace the history of the AI model. Doing this will help to understand the models better and establish trust through a historical basis.*

Or. en

Amendment 295

Eva Kaili

Motion for a resolution

Paragraph 29 f (new)

Motion for a resolution

Amendment

29f. *Stresses that AI systems must always identify themselves as such and state that clearly in every interaction they have with humans.*

Or. en

Amendment 296

Ashley Fox

Motion for a resolution

Paragraph 29 f (new)

Motion for a resolution

Amendment

29f. *Notes that Articles 13-15 of the GDPR mandates that data subjects receive meaningful information about the logic involved.*

Or. en

Amendment 297

Eva Kaili

Motion for a resolution

Paragraph 29 g (new)

Motion for a resolution

Amendment

29g. Believes that artificial intelligence, especially those with built-in autonomy, including the capability to independently extract, collect and share sensitive information with various stakeholders, and the possibility of self-learning or even evolving to self-modify, should be subject to robust conceptual laws or principles. Stresses that AI systems must not keep or disclose personal confidential information without explicit approval from the source of that information.

Or. en

Amendment 298

Ashley Fox

Motion for a resolution

Paragraph 29 g (new)

Motion for a resolution

Amendment

29g. Acknowledges the balance that needs to be reached between explainability and accuracy, notes that accuracy can be lost in an attempt to ensure explainability as solutions that cannot be explained may need to be rejected. Calls on the expert groups to determine the appropriate balance.

Or. en

Amendment 299

Eva Kaili

Motion for a resolution

Paragraph 29 h (new)

Motion for a resolution

Amendment

29h. Reiterates that the right to the protection of private life and the right to the protection of personal data as enshrined in Article 7 and 8 CFR and Article 16 TFEU apply to all areas of robotics and artificial intelligence and that the Union legal framework for data protection must be fully complied with; underlines the responsibility of designers of robotics and artificial intelligence to develop products in such a way that they are safe, secure and fit for purpose and follow procedures for data processing compliant with existing legislation, confidentiality, anonymity, fair treatment and due process;

Or. en

Amendment 300

Ashley Fox

Motion for a resolution

Paragraph 29 h (new)

Motion for a resolution

Amendment

29h. Calls on the Commission to ensure that any Union legislation on artificial intelligence will include measures and rules which take into account the rapid technological evolution in this field, to ensure that Union legislation does not lag behind the curve of technological development and deployment; stresses the need for such legislation to be compliant with rules on privacy and data protection;

Or. en

Amendment 301

Eva Kaili

Motion for a resolution

Paragraph 29 i (new)

Motion for a resolution

Amendment

29i. Calls on the Commission to ensure that any Union legislation on artificial intelligence will include measures and rules which take into account the rapid technological evolution in this field, to ensure that Union legislation does not lag behind the curve of technological development and deployment; stresses the need for such legislation to be compliant with rules on privacy and data protection, i.e. concerning information obligations, the right to obtain an explanation of a decision based on automated processing, the requirement to follow the principles of privacy by design and by default, the principles of proportionality, necessity, data minimisation, purpose limitation, as well as transparent control mechanisms for data subjects and data protection authorities, and appropriate remedies in compliance with current legislation; calls for the review of rules, principles and criteria regarding the use of cameras and sensors in robots, artificial intelligence in accordance with the Union legal framework for data protection;

Or. en

Amendment 302

Ashley Fox

Motion for a resolution

Paragraph 29 i (new)

Motion for a resolution

Amendment

29i. *Calls on the Commission and the Member States to promote strong and transparent cooperation between the public and private sectors and academia that would reinforce knowledge sharing, and to promote education and training for designers on ethical implications, safety and respect of fundamental rights as well as for consumers on the use of robotics and artificial intelligence, with particular focus on safety and data privacy;*

Or. en

Amendment 303

Eva Kaili

Motion for a resolution

Paragraph 29 j (new)

Motion for a resolution

Amendment

29j. *Suggests that AI research activities should be conducted in accordance with the precautionary principle, anticipating potential safety impacts of outcomes and taking due precautions, proportional to the level of protection, while encouraging progress for the benefit of society and the environment.*

Or. en

Amendment 304

Eva Kaili

Motion for a resolution

Paragraph 29 k (new)

Motion for a resolution

Amendment

29k. *Notes that AI engineers or the*

companies employing them should remain accountable for the social, environmental and human health impacts that AI systems or robotics may impose on present and future generations.

Or. en

Amendment 305

Eva Kaili

Motion for a resolution

Paragraph 29 l (new)

Motion for a resolution

Amendment

29l. Stresses that the right to privacy must always be respected. An AI developer should guarantee that individuals are not personally identifiable, aside from exceptional circumstances and then only with clear, unambiguous informed consent. Human informed consent should be pursued and obtained prior to any man-machine interaction. As such, AI designers have a responsibility to develop and follow procedures for valid consent, confidentiality, anonymity, fair treatment and due process. Designers will comply with any requests that any related data be destroyed, and removed from any datasets.

Or. en

Amendment 306

Eva Kaili

Motion for a resolution

Paragraph 29 m (new)

Motion for a resolution

Amendment

29m. Calls on the Commission to ensure that applications based on AI should not

use data collected from various sources without first the explicit consent of the data subject which has to be reaffirmed on a regular basis. (For example the collection of data by idle sensors, like but not restricted to microphones and cameras.). Calls on the Commission to create a framework that makes sure that explicit consent given by the subject of data, will generate data only for the intended purposes and not for uses that the subject of data did not give his consent.

Or. en

Amendment 307
Eva Kaili

Motion for a resolution
Subheading 17

Motion for a resolution

Amendment

Governance

Governance/Cybersecurity

Or. en

Amendment 308
Eva Kaili

Motion for a resolution
Paragraph 31

Motion for a resolution

Amendment

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners; recognises that this technology does not have any borders and requires cooperation beyond that of the EU Member States alone;

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners *in bilateral and multilateral settings, for an ethical advancement and adoption of AI*; recognises that this technology does not

have any borders and requires cooperation beyond that of the EU Member States alone;

Or. en

Amendment 309

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 31

Motion for a resolution

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners; recognises that this technology does not have any borders and requires cooperation beyond that of the EU Member States alone;

Amendment

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners; Recognises that this technology does not have any borders and requires cooperation beyond that of the EU Member States alone; ***however stresses the great need for the Union to build up its own capacities;***

Or. en

Amendment 310

Dario Tamburrano

Motion for a resolution

Paragraph 31

Motion for a resolution

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners; recognises that this technology does not have any borders and requires cooperation beyond that of the EU Member States alone;

Amendment

31. Stresses the different models being developed in third countries, concretely in the US, China, Russia and Israel, and highlights the values-based approach used in Europe and the need to work with international partners; recognises that this technology does not have any borders and requires cooperation beyond that of the EU Member States alone, ***also including civil***

society, NGOs and other social-sector organizations;

Or. en

Amendment 311
Dario Tamburrano

Motion for a resolution
Paragraph 31 a (new)

Motion for a resolution

Amendment

31a. Expresses great concern about the employment of AI applications, including facial and vocal recognition, in programmes of "emotional surveillance", i.e. monitoring the mental conditions of workers and citizens in order to increase productivity and preserve social stability, sometimes coupled with "social credit" systems, for instance those already put in place in China; stresses that programmes as such inherently conflict with European values and norms protecting the rights and freedoms of individuals;

Or. en

Amendment 312
Reinhard Bütikofer
on behalf of the Verts/ALE Group

Motion for a resolution
Paragraph 31 a (new)

Motion for a resolution

Amendment

31a. Underlines that AI is a technology with worldwide impact, giving common benefits and raising similar challenges. As in the case of the economic system and especially in the case of a technology with significant impact on the markets, a global approach is needed. AI needs to be

put on the agenda of the existing institutions and organisations and the need for additional fora should be assessed and properly followed up.

Or. en

Amendment 313

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 32

Motion for a resolution

32. Calls on the Commission to work *at* an international level to ensure *maximal* consistency between international players;

Amendment

32. *Notes AI is a global phenomenon and consequently a human centric approach to AI will require cooperation and compatible policies across the globe ;* Calls on the Commission to work *on* an international level to *promote EU ethical values worldwide and to ensure that there is the greatest* consistency between international players;

Or. en

Amendment 314

Eva Kaili

Motion for a resolution

Paragraph 32

Motion for a resolution

32. Calls on the Commission to work at an international level to ensure maximal consistency between international players;

Amendment

32. Calls on the Commission to work at an international level to ensure maximal consistency between international players *noting that the EU would not compromise its own values for reaching those agreements;*

Or. en

Amendment 315

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 32

Motion for a resolution

32. Calls on the Commission to work at an international level to ensure maximal consistency between international players;

Amendment

32. Calls on the Commission to work at an international level to ensure maximal consistency between international players ***but also to allow the EU to better promote its values worldwide;***

Or. en

Amendment 316

Dario Tamburrano

Motion for a resolution

Paragraph 32 a (new)

Motion for a resolution

Amendment

32a. Reiterates its call for the urgent adoption of a EU common position on lethal autonomous weapon systems and for effective international negotiations for the prohibition of the development, production and use of lethal autonomous weapon systems where advanced technologies, including AI, enable strikes to be carried out without meaningful human control;

Or. en

Amendment 317

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 32 a (new)

Motion for a resolution

Amendment

32a. *Calls on the Commission to work towards developing a strong EU leadership which can prevent duplication/fragmentation of efforts and ensure national-level policies and the exchange of best practices for wider usage of AI.*

Or. en

Amendment 318

Caroline Nagtegaal, Angelika Mlinar, Lieve Wierinck

Motion for a resolution

Paragraph 33

Motion for a resolution

33. Welcomes the different strategies developed by the Member States;

Amendment

33. Welcomes the different strategies developed by the Member States; **welcomes the action plan on AI of the Commission published on December 5th 2018; calls for better coordination between the Member States and the Commission;**

Or. en

Amendment 319

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 33

Motion for a resolution

33. Welcomes the **different** strategies developed by the Member States;

Amendment

33. Welcomes the **national** strategies developed by the Member States, **and the Commission initiative to coordinate and monitor Member States AI uptake, impact and investments;**

Or. en

Amendment 320

Eva Kaili

Motion for a resolution

Paragraph 33

Motion for a resolution

33. Welcomes the different strategies developed by the Member States;

Amendment

33. Welcomes the different strategies developed by the Member States;

Or. en

Amendment 321

Eva Kaili

Motion for a resolution

Paragraph 33 a (new)

Motion for a resolution

Amendment

33a. Calls on the Commission to ensure that start-ups and SMEs will have access and tools to necessary data in order to be competitive in the AI race.

Or. en

Amendment 322

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 33 a (new)

Motion for a resolution

Amendment

33a. Calls on the Commission to reinforce cybersecurity capacity by further combining and coordinating efforts across Europe;

Or. en

Amendment 323

Algirdas Saudargas, Michał Boni, Pilar del Castillo Vera

Motion for a resolution

Paragraph 33 b (new)

Motion for a resolution

Amendment

33b. Stresses that a harmonised, risk-based and progressive EU data policy framework would increase trust and support the path of AI in Europe, thereby ensuring the completion of the Digital Single Market and increased productivity of European based businesses;

Or. en

Amendment 324

Ashley Fox

Motion for a resolution

Paragraph 34

Motion for a resolution

Amendment

34. Calls on the Commission to consider setting up a task force for AI with a view to providing the technical, ethical and regulatory expertise needed to support the relevant public actors, at both Union and Member State level, in their efforts to ensure a timely, ethical and well-informed response to the new opportunities and challenges;

deleted

Or. en

Amendment 325

Eva Kaili

Motion for a resolution

Paragraph 34

Motion for a resolution

34. Calls on the Commission to consider setting up a task force for AI with a view to providing the technical, ethical and regulatory expertise needed to support the relevant public actors, at both Union and Member State level, in their efforts to ensure a timely, ethical and well-informed response to the new opportunities and challenges;

Amendment

34. Calls on the Commission to consider setting up a task force ***or a European Oversight Mechanism*** for AI with a view to providing the technical, ethical and regulatory expertise needed to support the relevant public actors, at both Union and Member State level, in their efforts to ensure a timely, ethical and well-informed response to the new opportunities and challenges; ***as well as to provide guidance to industry and academia in the development and use of ethical AI; Such an entity could safeguard that AI systems are designed and operate to reflect human values such as fairness, accountability, and transparency and avoid (new)inequalities and biases***

Or. en

Amendment 326

Eva Kaili

Motion for a resolution

Paragraph 34 a (new)

Motion for a resolution

Amendment

34a. Believes that enhanced cooperation between the Member States and the Commission is necessary in order to guarantee coherent cross-border rules in the Union which encourage the collaboration between European industries and allow the deployment in the whole Union of AI which are consistent with the required levels of safety and security, as well as the ethical principles enshrined in Union law;

Or. en

Amendment 327

Ashley Fox

Motion for a resolution

Paragraph 34 a (new)

Motion for a resolution

Amendment

34a. Recommends that existing and future AI-related initiatives and pilot projects carried out by the Commission should be closely coordinated with Member States, so as to ensure the creation of real added value while avoiding costly double structures;

Or. en

Amendment 328

Eva Kaili

Motion for a resolution

Paragraph 34 b (new)

Motion for a resolution

Amendment

34b. Emphasises that the Union has an excellent opportunity to become the global leader in the responsible innovation of AI and to be a credible actor in shaping its development and markets globally, in collaboration with our international partners in a socially robust and ethically sound manner;

Or. en

Amendment 329

Eva Kaili

Motion for a resolution

Paragraph 34 c (new)

34c. *Recommends that existing and future AI-related initiatives and pilot projects carried out by the Commission should be closely coordinated, possibly under the guidance of the proposed oversight mechanism, so as to realise synergy effects and ensure the creation of real added value while avoiding costly double structures;*

Or. en

Amendment 330

Eva Kaili

Motion for a resolution

Paragraph 34 d (new)

34d. *Calls on the Commission and the Member States to consider the creation of a European regulatory agency for AI and algorithmic decision-making tasked with:*

- *Establishing a risk assessment matrix for classifying algorithm types and application domains according to potential for significant negative impact on citizens.*
- *Investigating the use of algorithmic systems where there is a suspicion (e.g. evidence provided by a whistle-blower) of infringement of human rights.*
- *Advising other regulatory agencies regarding algorithmic systems as they apply to the remit of those agencies.*
- *Facilitating the effectiveness of the tort liability mechanism as means for regulating accountability of algorithmic systems by providing a contact point for citizens who are not familiar with legal procedures.*

- *Auditing the Algorithmic Impact Assessments of high-level impact systems to approve or reject the proposed uses of algorithmic decision-making in highly sensitive and/or safety-critical application domains (e.g. private health-care). The Algorithmic Impact Assessment for private sector applications could follow a very similar process as the one we proposed for the public sector, with the possible difference that the various stages of public disclosure could be handled as confidential communication to the regulatory agency (under non-disclosure agreement) in order to safeguard vital trade secrets.*
- *Investigating suspected cases of rights violations by algorithmic decision-making systems, for both individual decision instances (e.g. singular aberrant outcomes) and statistical decision patterns (e.g. discriminatory bias). Investigations could be triggered following the lodging of complaints, or on the basis of evidence provided by whistle-blowers, investigative journalists or independent researchers (including NGOs and academics).*

Or. en