



2018/2090(INI)

6.9.2018

AMENDMENTS

1 - 61

Draft opinion

Tamás Deutsch

(PE623.921v01-00)

Education in the digital era: challenges, opportunities and lessons for EU
policy design
(2018/2090(INI))

Amendment 1
Patrizia Toia

Draft opinion
Paragraph 1

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's **democratic, social, cultural, and economic** future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and **must serve to create an inclusive society, not least where employment and production are concerned, and** underlines that in the future, nearly all jobs will require digital skills;

Or. it

Amendment 2
Nadine Morano

Draft opinion
Paragraph 1

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's future, **its competitiveness, its growth, and the development of its power**; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs, **as well as everyday activities**, will require digital skills;

Or. fr

Amendment 3
Tamás Deutsch

Draft opinion
Paragraph 1

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's future; ***whereas education has a strategic importance for employability, growth, innovation and social cohesion***; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Or. en

Amendment 4
Theresa Griffin, Peter Kouroumbashev, Patrizia Toia, Carlos Zorrinho, José Blanco López, Clare Moody, Wajid Khan, Miapetra Kumpula-Natri

Draft opinion
Paragraph 1

Draft opinion

1. Highlights the vital role of education ***and*** training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education, training ***and re-training that is available for all*** as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Or. en

Amendment 5

Carolina Punset, Pavel Telička, Frédérique Ries

Draft opinion

Paragraph 1

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs **and services** will require digital skills **and data literacy**;

Or. en

Amendment 6

Dario Tamburrano, Isabella Adinolfi

Draft opinion

Paragraph 1

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; **strongly believes** that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's future; **recognises** that digital transformation has a great impact on **the society and the** education systems **alike**; stresses that digital competencies are of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Or. en

Amendment 7

Răzvan Popa

**Draft opinion
Paragraph 1**

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital **competencies are** of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's future; strongly believes that digital transformation has a great impact on education systems; stresses that digital **literacy is** of growing importance for every individual and underlines that in the future, nearly all jobs will require digital skills;

Or. en

**Amendment 8
Marisa Matias**

**Draft opinion
Paragraph 1**

Draft opinion

1. Highlights the vital role of education and training as the best investment in the EU's future; **strongly** believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, **nearly all** jobs will require digital skills;

Amendment

1. Highlights the vital role of education and training as the best investment in the EU's future; believes that digital transformation has a great impact on education systems; stresses that digital competencies are of growing importance for every individual and underlines that in the future, **several** jobs will require digital skills;

Or. en

**Amendment 9
Dario Tamburrano, Isabella Adinolfi**

**Draft opinion
Paragraph 1 a (new)**

1a. Stresses that, in a context of rapid digital and societal transformation, the education system should support, from an early age and throughout life, a balanced set of skills and competences boosting individuals' resilience, critical thinking, wellbeing, and innovation potential; for instance, a synergy between relevant digital skills and life skills^{1a}, as well as key competences^{1b} (especially personal, social and entrepreneurial), needs to be sought urgently;

^{1a} Life skills are defined by the World Health Organisation as “the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life.[...] a core set of life skills are: decision making, problem solving, creative thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions, coping with stress”.

^{1b} Council Recommendation on Key Competences for Lifelong Learning adopted on 22 May 2018.

Or. en

Amendment 10
Dario Tamburrano, Isabella Adinolfi

Draft opinion
Paragraph 1 b (new)

1b. Stresses that, while recognising the need for more digital skills, the education system must be at the forefront for promoting a responsible use of digital tools, as well as for protecting the

physiological neurosensory and behavioural development of learners, especially during childhood, avoiding the spreading of pathologies linked with digitalisation affecting social relationships and physical relations with spatiality, materiality and time;

Or. en

Amendment 11

Benedek Jávor, Tilly Metz

on behalf of the Verts/ALE Group

Draft opinion

Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves, *following a differentiated and tailor-made approach adapted to the age, characteristics and needs of the targeted audience while preserving the human dimension necessary to achieve an efficient and healthy learning process and personal development;*

Or. en

Amendment 12

Patrizia Toia

Draft opinion

Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared, ***both through schooling and through skilled continuing training on a lifetime basis***, for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves ***in order to provide the preparation and abilities needed to cope with endless technological changes and the continual challenges of innovation***;

Or. it

Amendment 13 Tamás Deutsch

Draft opinion Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; ***by making full use of new technologies as tools for boosting innovation in Europe's education systems and stresses the need for the effective development of digital competences***; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming

increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Or. en

Amendment 14

Dario Tamburrano, Isabella Adinolfi

Draft opinion

Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens ***should be prepared for*** lifelong learning ***in a world that is becoming increasingly digitalised***, and secondly, digital transformation should also be applied to education systems themselves;

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, ***it needs to provide*** citizens ***with*** lifelong learning ***along with the digital evolution***, and secondly, digital transformation should also be applied to education systems themselves ***in order to improve their quality and inclusiveness***;

Or. en

Amendment 15

Christelle Lechevalier

Draft opinion

Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) ***and recalls the importance of completing the digital single market***; points out that digitalisation has a twofold impact on education systems:

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022); points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world

firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Or. fr

Amendment 16

Marisa Matias

Draft opinion

Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and ***recalls the importance of completing the digital single market;*** points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

Or. en

Amendment 17

Carolina Punset, Pavel Telička

Draft opinion

Paragraph 2

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and recalls the

importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves;

importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be applied to education systems themselves, *as well as to educators*;

Or. en

Amendment 18 **Răzvan Popa**

Draft opinion **Paragraph 2**

Draft opinion

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and *recalls* the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be *applied to* education systems *themselves*;

Amendment

2. Welcomes the Commission communication of 17 January 2018 on the Digital Education Action Plan (COM(2018)0022) and *emphasizes* the importance of completing the digital single market; points out that digitalisation has a twofold impact on education systems: firstly, citizens should be prepared for lifelong learning in a world that is becoming increasingly digitalised, and secondly, digital transformation should also be *implemented in* education systems;

Or. en

Amendment 19 **Patrizia Toia**

Draft opinion **Paragraph 2 a (new)**

Draft opinion

Amendment

2a. Points to the importance of

promoting and imparting a ‘digital culture’ through knowledge and skills leading to understanding of the significance of digital technology in everyday life and through widespread preparation for the proper use of digital tools that should be incorporated in all digital-related schemes in the form of dedicated actions;

Or. it

Amendment 20

Benedek Jávor, Tilly Metz

on behalf of the Verts/ALE Group

Draft opinion

Paragraph 2 a (new)

Draft opinion

Amendment

2a. *Underlines that the transformations brought by the digitalisation of industry and of many of the activities undergone in the society need to be accompanied by educational and cultural support for the workforce, enabling them to transition to new positions or find new roles in the society.*

Or. en

Amendment 21

Carolina Punset, Pavel Telička, Frédérique Ries

Draft opinion

Paragraph 2 a (new)

Draft opinion

Amendment

2a. *Welcomes the Commission proposal to set up the Digital Europe Programme that will strengthen the EU’s digital transformation and tackle key digital challenges, including advanced*

digital skills and building strong digital capacities;

Or. en

Amendment 22

Dario Tamburrano, Isabella Adinolfi

Draft opinion

Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide *by* creating an investment-friendly environment *and* fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide *between and within EU countries and among generations, favouring strong public investments and* creating an investment-friendly environment, *while* fostering digital infrastructure such as high-capacity broadband networks; *recalls that connectivity is essential for the modernisation of the education system, but that careful assessment of the potential negative effect on human health, including due to electromagnetic pollution, must be taken into account during the infrastructure planning phase.*

Or. en

Amendment 23

Tamás Deutsch

Draft opinion

Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great

Amendment

3. *Underlines the importance of education in helping use effectively ICT technologies and in preparing for rapid*

importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

adaptation to changes due to digitalisation and for taking an active part in shaping the process of digitalisation; further underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Or. en

Amendment 24
Carolina Punset, Pavel Telička, Frédérique Ries

Draft opinion
Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance ***and enable access to the opportunities offered by technology;*** highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks; ***emphasizes the importance of the Connecting Europe Facility in providing the physical infrastructure for high capacity broadband networks;***

Or. en

Amendment 25
Marisa Matias

Draft opinion
Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance ***and must be further developed in an equal manner in all European regions***; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks, ***guaranteeing net neutrality and equal access***;

Or. en

Amendment 26
Miapetra Kumpula-Natri

Draft opinion
Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as ***very*** high-capacity broadband networks ***as defined in Article [2 (XX)] of Directive (EU) 2018/XXX [the European Electronic Communications Code]*** ;

Or. en

Amendment 27
Benedek Jávor, Tilly Metz
on behalf of the Verts/ALE Group

Draft opinion
Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance ***and its rollout should be accompanied by proper training ensuring healthy and efficient usage*** ; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Or. en

Amendment 28
Francesc Gambús

Draft opinion
Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide – ***in both generational and territorial terms*** – by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Or. es

Amendment 29
Patrizia Toia

Draft opinion
Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and

Amendment

3. Underlines that sufficient infrastructure offering high-quality and

accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

accessible connectivity is of great importance; highlights the need to close the digital divide *so as to ensure digital accessibility* by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Or. it

Amendment 30

Theresa Griffin, Peter Kouroumbashev, Patrizia Toia, Carlos Zorrinho, José Blanco López, Clare Moody, Wajid Khan, Miapetra Kumpula-Natri

Draft opinion

Paragraph 3

Draft opinion

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Amendment

3. Underlines that sufficient infrastructure offering high-quality and accessible connectivity *for all citizens* is of great importance; highlights the need to close the digital divide by creating an investment-friendly environment and fostering digital infrastructure such as high-capacity broadband networks;

Or. en

Amendment 31

Benedek Jávor, Tilly Metz
on behalf of the Verts/ALE Group

Draft opinion

Paragraph 3 a (new)

Draft opinion

Amendment

3a. Recalls that the digital divide is created by lack of network access but also by uneven speeds between regions and lack of knowledge about the way the network can be used to improve citizens' life. Calls for a comprehensive approach

to increase coverage, achieve similar levels of connectivity and equal knowledge for all.

Or. en

Amendment 32
Miapetra Kumpula-Natri

Draft opinion
Paragraph 3 a (new)

Draft opinion

Amendment

3a. Stresses that according to the Union's strategic connectivity targets, all socio-economic drivers, of which schools are a prime example, should access to at least a gigabit upload/download connectivity; highlights the need for increased financing and investment in order to reach this target

Or. en

Amendment 33
Patrizia Toia

Draft opinion
Paragraph 4

Draft opinion

Amendment

4. Stresses the vital role of high-capacity broadband networks, ***cybersecurity and artificial intelligence*** as the backbone of future education and training schemes; ***underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;***

4. Stresses the vital role of high-capacity broadband networks as the backbone of future education and training schemes;

Or. it

Amendment 34

Theresa Griffin, Peter Kouroumbashev, Patrizia Toia, Carlos Zorrinho, José Blanco López, Clare Moody, Wajid Khan, Miapetra Kumpula-Natri

Draft opinion

Paragraph 4

Draft opinion

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools, ***universities and colleges*** and encouraging schools to participate in the EU Code Week; ***emphasises the need for access to classes for vulnerable people and those who may not have access to these schemes through education systems;***

Or. en

Amendment 35

Tamás Deutsch

Draft opinion

Paragraph 4

Draft opinion

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week; ***calls for sufficient investments in research and innovation e.g. in 5G, artificial intelligence and cybersecurity, as those has not yet unleashed its full potentials;***

Or. en

Amendment 36
Carolina Punset, Pavel Telička

Draft opinion
Paragraph 4

Draft opinion

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;
highlights the need to introduce cybersecurity teaching programmes in academic and vocational training curricula;

Or. en

Amendment 37
Răzvan Popa

Draft opinion
Paragraph 4

Draft opinion

4. Stresses the ***vital*** role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the ***crucial*** role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week; ***Stresses that these sort of classes should be introduced in the educational of all EU Member States.***

Or. en

Amendment 38

Marisa Matias

Draft opinion

Paragraph 4

Draft opinion

4. Stresses the vital role of **high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of** future education and training schemes; **underlines the importance of** introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the vital role of **digital education but, at no moment, it replaces the formal education spaces that already exist. Nevertheless,** future education and training schemes **towards digital competences should be put in place, namely by** introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Or. en

Amendment 39

Dario Tamburrano, Isabella Adinolfi

Draft opinion

Paragraph 4

Draft opinion

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the vital role of high-capacity broadband networks, cybersecurity, **block-chain** and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Or. en

Amendment 40

Miapetra Kumpula-Natri

Draft opinion
Paragraph 4

Draft opinion

4. Stresses the vital role of high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Amendment

4. Stresses the vital role of **very** high-capacity broadband networks, cybersecurity and artificial intelligence as the backbone of future education and training schemes; underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week;

Or. en

Amendment 41
Marisa Matias

Draft opinion
Paragraph 4 – subparagraph 1 (new)

Draft opinion

Amendment

The protection of educational professionals and workers is essential in any education system and must not be jeopardized when developing new education policies. The same applies to the need for a proper financing in public education.

Or. en

Amendment 42
Patrizia Toia

Draft opinion
Paragraph 4 a (new)

Draft opinion

Amendment

4a. Calls on the Commission to promote lifelong learning in the scientific and mathematical field with a view to supporting the development of the digital

skills and tools necessary to underpin processes linked to artificial intelligence and cybersecurity;

Or. it

Amendment 43

Patrizia Toia

Draft opinion

Paragraph 4 b (new)

Draft opinion

Amendment

4b. Underlines the importance of introducing coding classes in all schools and encouraging schools to participate in the EU Code Week, not least to help avert the danger of scams and fake news online and on social networks; points to the importance of boosting learning within active digital communities (for example blogs, social networks, or webinars) through ‘learning by doing’ methodologies;

Or. it

Amendment 44

Carolina Punset, Pavel Telička

Draft opinion

Paragraph 5

Draft opinion

Amendment

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; **highlights the role that Digital Innovation Hubs can play in this context;** underlines the need to strengthen connections **and active dialogue** between education and employment **and recognises the**

minimum level of digital competencies that students should acquire during their studies should be drawn up.

importance of fostering work-based learning apprenticeships; recalls the need to encourage young people to pursue ICT studies; *welcomes, in this direction, the Digital Opportunity traineeship initiative financed by Horizon 2020 and implemented through Erasmus+*; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up;

Or. en

Amendment 45 **Tamás Deutsch**

Draft opinion **Paragraph 5**

Draft opinion

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Amendment

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; *stresses the importance of designing special training solutions for people working in small and medium-sized enterprises(SMEs) and of re-training unemployed people*; underlines the need to strengthen connections between education and employment; *given that digital transformation will be a factor why some of today's jobs will disappear and new jobs will emerge*; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Or. en

Amendment 46

Draft opinion
Paragraph 5

Draft opinion

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an ***increasingly*** digital ***economy***; underlines the need to strengthen connections between education and employment; recalls the need to ***encourage young people to pursue ICT*** studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Amendment

5. Stresses the urgent need to develop the full range of digital skills ***together with life skills^{1c}, including critical thinking and media literacy***, that individuals and companies will ***increasingly*** require in an ***always evolving*** digital ***society***; underlines the need to strengthen connections between education and employment; recalls the need to ***close the gender gap in ICT and STEM (science, technology, engineering and mathematics)*** studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

^{1c} ***Life skills are defined by the World Health Organisation as “the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life.[...] a core set of life skills are: decision making, problem solving, creative thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions, coping with stress”.***

Or. en

Amendment 47
Patrizia Toia

Draft opinion
Paragraph 5

Draft opinion

Amendment

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up; ***points to the importance of promoting proper training for women, and their necessary participation, in the scientific, technological, and digital field.***

Or. it

Amendment 48
Esther de Lange

Draft opinion
Paragraph 5

Draft opinion

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Amendment

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; ***highlights the importance of digital competencies in assessing the reliability of online information***; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Or. en

Amendment 49

Draft opinion
Paragraph 5

Draft opinion

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Amendment

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment ***and to develop digital training content and infrastructure accessible to all***; recalls the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Or. lt

Amendment 50
Răzvan Popa

Draft opinion
Paragraph 5

Draft opinion

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; ***recalls*** the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up.

Amendment

5. Stresses the urgent need to develop the full range of digital skills that individuals and companies will require in an increasingly digital economy; underlines the need to strengthen connections between education and employment; ***urges*** the need to encourage young people to pursue ICT studies; emphasises that recommendations for a minimum level of digital competencies that students should acquire during their studies should be drawn up ***and introduced in the curriculum.***

Or. en

Amendment 51

Marisa Matias

Draft opinion

Paragraph 5 – subparagraph 1 (new)

Draft opinion

Amendment

Cooperation and exchange of information are of the most valuable importance and should be strongly promoted. Teachers must not be expected to simply impart knowledge in a mechanical way; their role is also to enable students to debate, think critically and to acquire social and emotional intelligence through interaction.

Or. en

Amendment 52

Carolina Punset, Pavel Telička, Frédérique Ries

Draft opinion

Paragraph 5 a (new)

Draft opinion

Amendment

5a. Stresses the need to boost entrepreneurial competences and an entrepreneurial mind-set and to support digital entrepreneurship; Underlines the role of the European Institute of Innovation and Technology (EIT) and the Knowledge and Innovation Communities in bringing together business, research and education into a knowledge triangle; Highlights the role of campus incubators and stresses the need to develop more university-linked incubation programmes in European universities;

Or. en

Amendment 53
Benedek Jávor, Tilly Metz
on behalf of the Verts/ALE Group

Draft opinion
Paragraph 5 a (new)

Draft opinion

Amendment

5a. Underlines that digital competencies are more than design and management of networks, software and ICT equipment, but also the possibility to interact with administrations and participate in the political life, exercise of the freedom of speech and other fundamental rights. Calls for measure meant to empower the citizens to properly function in a connected world and avoid pitfalls like fake news and online disinformation.

Or. en

Amendment 54
Christelle Lechevalier

Draft opinion
Paragraph 5 a (new)

Draft opinion

Amendment

5a. Recognises the vital importance of digital technology in education and training; points, however, to the dangers that can arise when young people are overexposed to screens; notes that overexposure among young children is a major public health issue, since it causes severe behavioural problems, and has to be combated.

Or. fr

Amendment 55

Dario Tamburrano, Isabella Adinolfi

Draft opinion
Paragraph 5 a (new)

Draft opinion

Amendment

5a. Highlights the importance of open data and collaborative digital technology tools and methods for the prosperity of the European economy and its entrepreneurship, hence considers to be a priority to boost advanced digital skills in this direction for current and future generations;

Or. en

Amendment 56

Theresa Griffin, Patrizia Toia, Carlos Zorrinho, José Blanco López, Clare Moody, Wajid Khan, Miapetra Kumpula-Natri

Draft opinion
Paragraph 5 a (new)

Draft opinion

Amendment

5a. Highlights the gap in access to education and digital skills for the most vulnerable in society; emphasises that equal access and the opportunity to learn digital skills for women and girls should be incorporated and encouraged.

Or. en

Amendment 57
Patrizia Toia

Draft opinion
Paragraph 5 a (new)

Draft opinion

Amendment

5a. 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 58
Dario Tamburrano, Isabella Adinolfi

Draft opinion
Paragraph 5 b (new)

Draft opinion

Amendment

5b. Stresses that the digital transformation within the workplace encompasses changes and challenges of adaptation for the human resources themselves; highlights therefore the importance of supporting training and lifelong learning focusing on the development of digital skills in synergy with the life skills^{1d} and key competences^{1e}, which are essential for the resilience, empowerment and well-being of the workforce in transition.

^{1d} Life skills are defined by the World Health Organisation as “the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life.[...] a core set of life skills are: decision making, problem solving, creative thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions, coping with stress”.

^{1e} Council Recommendation on Key Competences for Lifelong Learning adopted on 22 May 2018.

Or. en

Amendment 59
Benedek Jávor, Tilly Metz
on behalf of the Verts/ALE Group

Draft opinion
Paragraph 5 b (new)

Draft opinion

Amendment

5b. *Stresses that the advance in technology also brings the need for societal evolution and all citizens, especially the young digital natives, need to have in their learning curricula privacy, security and basic safeguards that will empower them and protect from malicious activity.*

Or. en

Amendment 60
Carolina Punset, Pavel Telička, Frédérique Ries

Draft opinion
Paragraph 5 b (new)

Draft opinion

Amendment

5b. *Recalls that digital technology and access to data are enablers of innovation in education; Stresses the importance of open data as an educational resource, as well as a tool for further developing Open Science.*

Or. en

Amendment 61
Benedek Jávor, Tilly Metz
on behalf of the Verts/ALE Group

Draft opinion
Paragraph 5 c (new)

Draft opinion

Amendment

5c. Stresses that digital transformation in the education sector should contribute to gender equality, empowering equally girls and boys, women and men, to feel secure to use new technologies, and engage into ICT studies.

Or. en