ICT Solutions for Brilliant Minds

CSC

Position Paper 13.9.2024
Review of the Digital Education Action Plan
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Digitalisation transforms all sectors of society, and learning is no exception. It is crucial for the education sector to not only adapt to the transformation but actively shape it and make full use of the numerous opportunities it presents. In addition, Europeans must be equipped with the skills and competences for developing and applying the digital solutions used throughout today's society. These solutions are based on creating value from data, which is a systemic change, requiring a new mindset and readiness to question existing processes and structures, to create new ones. The dual mission of the Digital Education Action Plan of fostering a digital education ecosystem and enhancing digital skills and competences remains highly relevant and must be carried on.

Promoting interoperability through the European Digital Education Hub

A concrete example of structural changes is advancing interoperability. This must be a key priority of the Digital Education Action Plan. If several similar solutions are developed without a systemic view and coordination, there is a risk of fragmentation and ultimately failure. Solutions for cross-border mobility of learners' data are a prime example demonstrating the need for coordination and interoperability between initiatives like EMREX[1], Europass[2] and the European Digital Identity[3].

Interoperability must be addressed at all its levels and across borders and sectors. For example, data mobility and other solutions developed by the European University Alliances[4] must be interoperable with national solutions and policies within the education sector and beyond, covering also closely related sectors, such as employment. Additionally, interoperability with the common European data spaces, especially the Data Space for Skills[5], as well as relevant global initiatives must be sought.

The work being done within the European Digital Education Hub[6] is instrumental for promoting interoperability and large-scale collaboration especially in higher education. This is particularly crucial now as collaboration between European universities is expected to intensify further through the European University Alliances. This interoperability work must be supported also in the future,

[1] https://emrex.eu/
[2] https://europa.eu/europass/en
[3] https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/european-digital-identity_en
[4] https://education.ec.europa.eu/education-levels/higher-education/european-universities-initiative
[5] https://www.skillsdataspace.eu/
[6] https://education.ec.europa.eu/focus-topics/digital-education/action-plan/european-digital-education-hub

even after the adoption of the European Higher Education Interoperability Framework, expected in early 2025.

Making the technical layer interoperable is not enough, but organisations and people must also work together towards common goals. This aspect of interoperability must be systematically driven, to ensure digital solutions that create value.

Trustworthy AI and data tools for learning

AI and data have a huge potential for making learning more effective through e.g. analytics on learning data and AI-based support services, such as those developed in the framework of Finland's Digivisio 2030 project[7]. While developing AI and data solutions, attention must be paid to their ethical use and to ensuring that individual learners always have the right to determine how their data is used, in line with MyData principles[8]. The Digital Education Action Plan has already addressed this issue through the development of related guidelines for educators[9] under Action 6. Further guidance for using and combining different data sources safely within data protection regulations is however needed.

It is crucial that AI tools used in teaching and learning are trustworthy. It is important that they are owned and that their goal and logic are determined by a reliable actor, and they must be trained with reliable data. EU must strive towards transparent AI models to tackle discrimination and improve inclusion and accessibility of instructional settings. We need research on AI implementations, such as reliable large language models, as well as transparent and open tools.

It is key to ensure that there are no legislative barriers for the emergence of trustworthy AI tools in Europe. All existing and upcoming laws must be reviewed carefully to make sure that they form a coherent legislative framework that supports European AI innovation. Researchers and innovators must also be provided with clear instructions and assistance to be able to comply with the requirements of new EU legislation, such as the AI Act and various data laws.

A strong competence base for Europe's competitiveness and resilience

The best way for Europe to boost its competitiveness and resilience is to invest in competences, in particular the ones that help us strengthen our economies and societies in the digital era. The Digital Education Action Plan must continue to enhance digital skills and competences across all educational fields and levels, and throughout people's lives. This entails support for both basic and advanced digital skills especially in areas such as data, AI, quantum, high-performance computing and cybersecurity.

These skills and their domain-specific application in all educational and research fields and industries must be ensured, including methodologies and business models. Attention must be paid to digital competences of teachers, including digital pedagogy. The understanding of how digitalisation transforms and replaces traditional ways of operating and thinking, must be seen as a strategic goal, that enables building a sustainable competence base.

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[7] https://digivisio2030.fi/en/new-services-developed-in-digivisio-2030/

[8] https://www.mydata.org/participate/declaration/

[9] https://op.europa.eu/en/publication-detail/-/publication/d81a0d54-5348-11ed-92ed-01aa75ed71a1/language-en

Linkages between education, research and industry must be deepened to make sure that education systems are developed based on the input and needs of the whole society. One aspect of this relates to recognising the role of research infrastructures as a tool for competence development. State-of-the-art European research infrastructures, such as the EuroHPC supercomputers, allow their users to develop new competences and they also make Europe more attractive for researchers outside Europe. Bringing new research and industry fields to develop their competences through using data-intensive and computational methods is critical for ensuring inclusion.

Sustainable funding for making an impact

To achieve lasting results, the implementation actions of the Digital Education Action Plan must not remain one-off projects. More sustained funding must be provided to e.g. the projects funded through the Next Generation EU Recovery and Resilience Facility. It is also important to look for synergies between various funding programmes in the digital field, to ensure support for Europe's digital education ecosystem and competence base as a whole.

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