Committee on Culture and Education

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WORKING DOCUMENT

on Shaping digital education policy

Committee on Culture and Education

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United in diversity

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#**Introduction**

Published in January 2018, the Digital Education Action Plan (DEAP)[1] represented the first dedicated Union policy framework for digital education, though in fact built on a series of digital skills and digital education policy initiatives dating back to the Lisbon Strategy of 2000. It followed immediately in the wake of the Commission's Communication on 'Strengthening European Identity through Education and Culture'[2], which set out a vision for a future European Education Area and fed the European Pillar of Social Rights[3] adopted at the November 2017 Gothenburg Summit.

The current DEAP contains a set of 11 specific actions grouped under three priorities:

- Making better use of digital technology for teaching and learning
- Developing relevant digital competences and skills for the digital transformation
- Improving education through better data analysis

At the end of 2018, the Parliament, under the aegis of the Committee on Culture and Education, adopted a resolution reacting to the DEAP and setting out its vision for the future development of EU digital education and skills policy (Toom report)[4]. There is much basic common ground between the DEAP and the Parliament resolution, notably in the diagnosis of the central challenges. However, re-reading the DEAP again in 2020, it is easy to see why the Parliament ultimately decries a lack of ambition and a sense that the DEAP is a collection of specific actions driven as much by what could be done with the money and toolkit available to the Commission as it was by what should be done given the policy imperative.

The Parliament deplores the fragmentation of Commission actions and budgetary interventions and the absence of an overarching digital skills and education strategy and calls for the DEAP to be the first step towards a joined-up, fully-fledged EU strategy. It also points to a number of important gaps in the Plan's intervention logic, which acknowledges the need for a lifelong learning approach, but inadequately addresses important life stages and non-formal education settings, and which recognises the inclusion and equality challenges inherent in the digital transition and the considerable disparities between and within Member States, but does not set out a clear approach to tackle those challenges. The Parliament also underscores the importance of teacher training and support and of basic digital literacy and life skills, both of which are cited in the DEAP, but do not feature prominently in the planned actions. Moreover, there are not enough references to the need to support parents and learners during the process of digital education and there is not enough clarity on how the plan is going to set up to deliver on its objectives. The European Parliament sees fit to correlate the European Education Area with the digital education strategy to enable the creation of a pan-European digital education eco-system accessible openly by everyone across Europe.

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[1] COM(2018) 022: Digital Education Action Plan - https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2018:22:FIN.

[2] COM(2017) 673: Strengthening European Identity through Education and Culture - https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2017%3A673%3AFIN

[3] https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights_en

[4] 2018/2090(INI): Education in the digital era: challenges, opportunities and lessons for EU policy design' - https://www.europarl.europa.eu/doceo/document/TA-8-2018-0485_EN.html

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When the new Commission took office and published its 2020 work programme in January of this year[5], it slated the second quarter of 2020 for publication of an updated Digital Education Action Plan originally as part of a broader 'education package', including the European Skills Agenda[6]. The Covid-19 crisis has seen an adjusted work programme and the update of the DEAP being put back to the end of September 2020, to enable a public consultation to be completed and the lessons from the Covid-19 crisis to be factored in. It is to be welcomed that the Commission will seek input from a broad range of stakeholders, especially since the Covid-19 crisis has demonstrated just how many players are involved in getting digital education right. It is also positive that the Commission will seek to take stock at least of the early lessons from the crisis. Despite this open process, the Commission should seek to integrate into its own strategy the position of the European Parliament reflected within the upcoming report of the CULT Committee on shaping digital education policy and in the resolution that is to be adopted on the future of European education in the context of Covid-19. The European Parliament, especially the Culture and Education Committee, wishes to play an active and constructive role in the development and implementation of European actions in the field of digital education.

The Covid-19 crisis and digital education in action

In mid-April 2020, no fewer than 188 countries around the world had closed schools nationwide, affecting some 1.5 billion learners and representing 91 per cent of learners enrolled in schools[7]. The same story played out across formal and non-formal education settings - crèches, pre-schools, VET colleges, universities, youth clubs and adult education colleges closed their doors and, in many cases, when the infrastructure was available to them, shifted online. Digital education was more than a tool; it became a necessity and a widespread solution to face the lockdown and provide education to as many learners as possible. This new reality underlined the need for a European approach to digital education, while, at the same time, working with global institutions and actors, like the United Nations, the World Bank and the Council of Europe, in identifying tailored solutions for the new challenges.

While there has been much innovation and remarkable creativity by educational establishments and their staff, enabling many to continue learning, the overall picture has been of a rushed digital transition, which has left those who were already behind even further behind. In some parts of the world, remote learning is virtually impossible to deliver with less than 25 per cent of low-income countries providing any form of remote learning (mostly via TV and radio). In Romania, close to 1 million children, representing 32% of pupils in Romania, did not have access to education for several months due to low access to basic infrastructure.[8] By contrast, around 90 per cent of high-income countries have offered remote learning, mostly online[9]. Yet, this apparently positive statistic for high-income countries still leaves 10 per cent of

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[5] COM(2020) 37: Commission Work Programme 2020: A Union that strives for more - https://ec.europa.eu/info/publications/2020-commission-work-programme-key-documents_en.
[6] In the end, the European Skills Agenda was published on 1 July 2020, ahead the revised DEAP. See European Skills Agenda for sustainable competitiveness, social fairnes and resilience - https://ec.europa.eu/social/BlobServlet?docId=22832&langId=en
[7] Up-to-date figures are provided by UNESCO at https://en.unesco.org/covid19/educationresponse
[8] Study conducted by the Romanian Institute for Evaluation and Strategy on education during the status of emergency - https://cdn.edupedu.ro/wp-content/uploads/2020/05/ires_accesul-elevilor-din-romania-la-educatie-online_studiu-national_aprilie-2020.pdf
[9] 'School closures, government responses and learning inequality around the world during Covid-19', Brookings Institution, 14 April 2020 - https://www.brookings.edu/research/school-closures-government-responses-and-learning-inequality-around-the-world-during-covid-19/

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schoolchildren without any form of learning and equally masks huge inequalities according to socioeconomic status. Research by the Sutton Trust[10] in the UK, for example, painted a stark picture of how the shift to digital learning has exacerbated inherent social inequalities. In short, children at fee-paying schools or at schools in affluent areas were considerably more likely to have access to the internet and to devices, and therefore to continue doing schoolwork, than their peers in more socially deprived parts of the country. The facts are clear: even in wealthy Member States, not all households have even one usable computer or a WiFi connection. These are the bare basics for any form of online learning.

The pandemic has brought to the fore many of the other gaps in the digital education ecosystem. Apart from a lack of access in the first place, schoolchildren need teachers who are digitally proficient enough to deliver effective online learning and a ready-made set of resources for the online environment (simply emailing worksheets or having online conversations is not the same thing as teaching). Digital tools are useful for teaching and learning and can become complementary instruments to education. But education requires more than having access to digital devices; it calls for an integrated approach, taking into consideration the psychological, social and practical requirements of teaching and learning. Children also need parents who can help guide them online. Students with learning difficulties or special educational needs require tailored support that has too often been lacking. While teachers and parents have learnt fast, the lack of digital skills among teachers and trainers and the shortage of effective teacher training in digital learning has been laid bare. Parents too have struggled, some because they lack the language skills required to help their children who may be learning in a different language, others because they themselves do not have the key literacy or numeracy skills required to provide help. Special actions, financially supported by European and national programmes, are needed to support parents and tutors in developing the skills required to help required their children. Many adults have themselves been grappling for the first time with basic digital literacy, such as cyber hygiene, privacy and media literacy, with disinformation a particular challenge during the health crisis. Again, the statistics are stark: there is a direct correlation between income and level of education on the one hand and a propensity to use the internet for information and education on the other[11].

On the one hand, therefore, the Covid-19 crisis has provided a compelling test bed for digital education policy and, on the other, has exposed myriad failings.

Key priorities for the revised Digital Education Action Plan

As illustrated above, the next generation of the Digital Education Action Plan must tackle the key challenges that have emerged over the course of the current Plan's implementation and those that have come to the fore during the Covid-19 crisis. The following should be priority areas of action:

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[10] 'Covid-19 and Social Mobility: Impact Brief - School Shutdown', 20 April 2002 - https://www.suttontrust.com/wp-content/uploads/2020/04/COVID-19-Impact-Brief-School-Shutdown.pdf
[11] 'Adult learners in a digital world', EPRS, October 2019 - https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)640141 - and 'The 2018 International Computer and Information Literacy Study', European Commission - https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)640141

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- *Inclusion and equality*

There is a clear link between where people live, their socioeconomic status, their level of education and the employment they have (or do not have) and their level of digital proficiency. Overall, some 43 per cent of Europeans lack basic digital skills[12]. While that figure is troubling for many reasons, it is particularly worrying because it hides enormous disparities. To simplify the picture, if you are a manual labourer on the minimum wage and with no diplomas living in rural Romania, your digital skills are likely to be much less developed than if you are a highly educated, high-earning lawyer living in Stockholm[13]. Differences take root in early childhood[14] and tend simply to expand through adulthood since lower educational attainment typically leads to worse employment prospects. Correspondingly, adults in lower-skilled employment and on lower pay often have less access to in-work training and development compared to their better paid, higher-skilled peers. As the 2020 Joint Employment Report spells out, only 4.3 per cent of low-skilled adults followed any form of adult learning in 2018[15].

The access of learners with disabilities and special needs to education has also been an issue. The new context and the lack of adaptation of digital tools for learners with special needs has widened the already existing gaps and has sometimes led to major delays in their education and training. The differences of approach across Member States needs to be tackled at European level, with an integrated European approach seeking to protect learners with special needs and enable them to access any available digital education platform at EU level that could help them continue their training and education.

The gender gap with respect to digital education and skills has not been significant, at least not in the European Union, but represents an issue at global level that Europe must raise and tackle together with its international partners. However, within the European Union, a considerable gender gap opens in terms of employment in the ICT sector or in jobs requiring advanced digital skills, with women making up only 21.5 per cent of workers in digital jobs.[16]

A generational gap nevertheless still exists. Adults and seniors with lower digital skills should be given the opportunity to access the new digital tools for their education but also be supported in developing the digital skills required today for daily activities. Everyone should be involved in the digital transformation and digital education can be the first step in achieving stronger public support.

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[12] Digital Economy and Society Index 2019 - https://ec.europa.eu/digital-single-market/en/desi
[13] Adult learners in a digital world', EPRS, October 2019 - https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)640141 - and 'The 2018 International Computer and Information Literacy Study', European Commission - https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)640141
[14] See OECD Skills Outlook 2019 - https://www.oecd.org/education/oecd-skills-outlook-e11c1c2d-en.htm - and 'Young children (0-8) and digital technology - a qualitative assessment', Joint Research Centre, 2018 - https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/young-children-0-8-and-digital-technology-qualitative-study-across-europe
[15] Joint Employment Report 2020, European Commission - https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8270
[16] See 'Rethinking education in the digital age', EPRS, March 2020 - https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_STU%282020%29641528 - and 'Women in the digital age', European Commission, 2018 - https://op.europa.eu/en/publication-detail/-/publication/84bd6dea-2351-11e8-ac73-01aa75ed71a1

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It is clear that the upgraded Digital Education Action plan must put inclusion and equality front and centre and mainstream it across all other facets of the Plan.

- *Access and connectivity*

Overall, digital infrastructure and digital equipment provision in schools within the Union is good. However, this masks "large disparities between countries and regions"[17]. The 2018 DEAP already sets out to deliver very high-capacity broadband in all European schools, with particular attention to disadvantaged and rural areas. As the Covid-19 crisis has graphically illustrated, effective digital education requires much broader internet access and connectivity not just in schools, but in homes, as well as access to devices. Union financial support must be targeted at delivering widespread access to digital infrastructure and equipment to close the digital infrastructure and equipment divide. Broadband internet should be considered a public good that needs to be accessible to everyone to ensure equal opportunities and the capacity to access digital forms of education. Pilot projects and preparatory actions initiated by the European Parliament that tackle the issue of accessibility to educational tools in areas and communities with low connectivity or access to technologies should be supported and transformed into permanent programmes designed to ensure access to digital opportunities for teachers and learners in remote areas.

But access to infrastructure is not enough. We need fit-for-purpose devices and digital tools tailored to the specific needs of education. Computers and tablets provided to teachers and learners must be adapted to education, ensuring a safe environment for the participants in the education process. Educational content must be adapted to the digital tools, with fully compatible and easy-to-access modules, like video content, gamified activities or tailor-made curricula co-created by teachers and learners.

- *Digital skills for life and work*

The digital skills challenge is twofold. On the one hand, it is vital to prepare people for an evolving labour market in which it is estimated that 30 per cent of jobs in the EU (50 per cent globally) will disappear over the next 25 years to be replaced by jobs requiring advanced digital skills[18]. This requires a root-and-branch rethink of the new skillsets required by young people (coding, computational thinking, AI, robotics, blockchain etc.)[19]. It also requires a concerted effort to put in place reskilling and upskilling policies that enable workers to transition from jobs at risk of automation to new, better-quality jobs[20].

As highlighted above, the Covid-19 crisis has brought to the fore already worrying levels of basic digital illiteracy. With the mass shift to online learning, working and living, people have found themselves struggling with core aspects of basic digital literacy, notably how to ensure data protection online, how to behave in a safe and cyber-secure manner or how to critically appraise information online. For some, the last few months have represented the first time they have ever done online shopping or banking or made medical appointments, again laying bare

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[17] 'Rethinking education in the digital age', EPRS, March 2020.
[18] 'Digitalization, jobs and convergence in Europe', European Commission, 2016 - http://eskills-scale.eu/fileadmin/eskills_scale/all_final_deliverables/scale_digitalisation_report.pdf
[19] See 'Skills for a connected world', UNESCO, 2018 - https://unevoc.unesco.org/home/UNEVOC+Publications/lang=en/akt=detail/qs=6104
[20] OECD Skills Outlook 2019 - https://www.oecd.org/education/oecd-skills-outlook-e11c1c2d-en.htm

the huge disparities in society. Moreover, it is crucial to protect minors and young people against the growing phenomenon of cyberbullying, dangerous digital games, threats to data protection, misuse of personal data about minors and fake news. The European Parliament has raised these issues repeatedly in the last couple of years calling for more action from the European Commission and Member States in this regard. It is essential that the upgraded DEAP sets out a clear strategy for supporting the transmission of basic life skills, such as privacy online, safety online and cyber hygiene. At the same time, alternative skills widely useful online, like critical thinking and media literacy, are currently needed to ensure a safe digital environment.

- *A lifelong learning approach - across sectors and settings*

In keeping with the recognition that basic digital skills and labour market-specific skills evolve over time, any digital education response must apply a lifelong learning approach, cut across education and training sectors and be embedded in both formal and non-formal education settings[21], with a particular focus on digital education pertaining to improving digital skills. It is important to examine the digital education needs and challenges for all sectors, from early childhood education and care and schools to higher education, VET and adult education. It is also important to recognise that non-formal education provides enormous digital learning potential but requires a concerted effort to improve skills validation and certification. A European certification mechanism would be helpful in developing a common European system accessible for all relevant actors in Europe. Moreover, EU funding programmes should target a lifelong learning approach, integrating digital education methods and digital skills objectives. At the same time, the development of a European digital platform as a one-stop-shop approach for lifelong learning could be a solution for the creation of a Digital European Education Area.

- *Innovation and resources in digital education*

New and emerging technologies, especially Artificial Intelligence, robotics, and Virtual and Augmented Reality, offer huge untapped learning potential. It is important that the new DEAP embraces innovation. Competences necessary for the creation, implementation and use of technologies based on AI and robotics should be built into education from an early stage. At the same time, quality remains key. As the OECD puts it, "technology's effect on student outcomes depends on how it is integrated into the classroom to support teaching and learning practices"[22] In other words, it is imperative to avoid falling into the trap of allowing the tail to wag the dog by "promoting digital solutions in search of problems"[23]. Moreover, there is evidence that digital technologies are much more effective when also built into assessment and examinations[24]. Frequently they are not.

The question of online resources has also come to the fore during the Covid-19 crisis, with teachers often struggling to find suitable education resources for online learning. In reality, much material exists, for example through the Erasmus+ e-twinning network, and much more

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[21] *Ibid.*

[22] *Ibid.*

[23] "Education outcomes enhanced by the use of digital technology: Re-imagining the school learning ecology", European Expert Network on Economics of Education, 2019 - https://op.europa.eu/en/publication-detail/-/publication/1eb638fd-4eb0-11e9-a8ed-01aa75ed71a1/language-en

[24] *Ibid.*

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can and should be done to pool educational resources across Member States to make online learning more effective. e-Twinning and Erasmus+ ought to be thoroughly reviewed and evaluated to further train teachers, parents, and learners with the aim of continually improving their digital skills. Outside formal education settings, Massive Open Online Courses (MOOCs), for example, provide enormous scope for lifelong learning and ought to expand access and drive inclusion, but, as the OECD notes[25], there remains a strong correlation between higher levels of education and skills and higher levels of use of MOOCs.

European universities have managed to be at the cutting edge of innovation in terms of digital education, but important disparities still exist between and within Member States depending on the financial capacities of the educational institutions. Merging the positive examples and creating a pan-European digital education infrastructure for European universities could be an excellent start in the creation of an Online European University containing content from different European universities.

- *Support to teachers and trainers*

The imperative to place technology at the service of pedagogy also requires putting teachers and trainers at the heart of the digital education process, both in design and execution[26]. In fact, this has too often not happened. Teachers and trainers have responded with enormous creativity to the Covid-19-driven digital transition but have also often found their digital skills wanting or else have been unable to teach effectively in a purely online environment. It is essential that teachers are given effective training - and the time to complete that training - to become more digitally proficient and confident. We need a tailor-made approach specific to each field of training to adapt teaching and learning to the specificities of all educational areas and to the particularities of the learning environment and learners' level. Special support should be given to technical and vocational schools and classes requiring a specific adapted digital environment.

Part of any teacher support and training drive must be built on a clear picture of existing digital skills and skills gaps. The SELFIE self-assessment tool[27] provides a very useful instrument that should be further rolled out and exploited. The creation of a widely recognised European evaluation mechanism of the digitalisation of education institutions containing checkboxes and objectives could be helpful in supporting the transformation and integration of digital tools in the educational process.

- *Multi-stakeholder and co-creation approach*

The Covid-19 crisis has made clear that getting digital education right involves a very broad range of stakeholders, a fact recognised in the literature for many years. If schoolchildren are going to learn effectively at home, parents need to support and guide them. If parents are to help children to engage positively with digital technologies, they need a positive and proactive approach from schools. If older people are going to keep digitally up-to-date, they need support from non-formal settings like libraries. If workers are going to adapt their skills, they need

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[25] OECD Skills Outlook 2019 - https://www.oecd.org/education/oecd-skills-outlook-e11c1c2d-en.htm
[26] Council Conclusions on European teachers and trainers for the future, 26 May 2020 - https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=uriserv:OJ.C_.2020.193.01.0011.01.ENG
[27] https://ec.europa.eu/education/schools-go-digital_en

support from businesses. The revised DEAP must be built on this multi-stakeholder foundation. We have to expand our perspective in developing a co-creation educational approach, with teachers, parents, learners, tutors, trainers, NGOs, local authorities, educational experts, private actors, educational institutions and concerned citizens involved in the process of defining the goals, the mechanisms and the means that could ensure a widely accepted and fully compatible digital transformation of our education.

Towards a Digital Education and Skills Strategy

After the three-year life cycle of the DEAP, it is time, as the Parliament stated in its 2018 resolution[28], to move towards a fully-fledged EU digital education and skills strategy. The strategy should seek to deliver on the core principles and themes set out above, but there are a number of governance and budgetary considerations that need to go into the revision of the DEAP to take it to the next level. Above all, the new strategy requires a long-term vision backed up by measurable short and long-term objectives and therefore to move away from the logic of a loose collection of actions. Such a strategy should have clear targets and be endowed with sufficient financial means offering the necessary support to deliver upon those objectives.

1. **Align the strategy with the seven-year timeframe of the MFF.** Given that Union financing for digital education comes from the MFF programmes, it makes sense to work according to the same 7-year timeframe. This should enable funding programmes to finance those actions that directly support the strategy. Defining clear programmes and targets for digital education is necessary to deliver on the objectives of the strategy. At the same time, the new European recovery plan should highlight digital education as a key objective. Fixing a 10% budgetary objective for education would be helpful in delivering on the goals of the strategies designed at European level for education. It should also enable the combination of a longer-term vision with measurable targets along the way.

2. **Spell out clearly in the revised DEAP where financing for different strands will come from.** The existing DEAP is supported through a range of financial programmes. This will continue in the new MFF, with funding being provided through Erasmus+, Creative Europe (media literacy), Horizon Europe, Digital Europe, the Connecting Europe Facility, InvestEU and the Structural Funds. The new Recovery and Resilience Facility will also be a key tool. There must be clarity about sources of financing and how they can work together effectively to create a synergy effect. At the same time, we need clarity on the actions being developed at European, national, or local level with precise targets and budgetary allocations.

3. **Embed the revised DEAP in a broader policy framework.** On 1 July 2020, the European Commission published a new European Skills Agenda[29]. One of its headline goals is to boost the share of adults with basic digital skills to at least 70% by 2025. Effective delivery of the revised DEAP will depend on a joined-up policy framework across policy initiatives - Skills Agenda, European Education Area, European Semester - and across

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[28] 2018/2090(INI): Education in the digital era: challenges, opportunities and lessons for EU policy design' - https://www.europarl.europa.eu/doceo/document/TA-8-2018-0485_EN.html
[29] European Skills Agenda for sustainable competitiveness, social fairness and resilience - https://ec.europa.eu/social/BlobServlet?docId=22832&langId=en

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funding instruments - using, for example, the ESF+ and the Recovery and Resilience Facility to target investment at digital education and skills. The inclusion and equality challenge in digital skills is inextricably linked to the aims of the Youth Guarantee and the Child Guarantee. Again, joined-up policy-making is essential. A correlation of those objectives with national and local actions is also needed, while at the same time integrating the targets into an open, permanent monitoring system that should be highlighted in the European semester mechanism.

4. **Integrate the revised DEAP into a broader governance framework.** If the new strategy is to drive meaningful change, it needs a much clearer governance framework, clarifying the role of the different institutional actors in the process. Leadership is vital. It is also essential that the involvement of multiple Directorates-General in the Commission does not lead to a disparate collection of loosely connected initiatives, but is rather driven by a robust governance framework and joined-up action where the specific expertise of each Directorate-General can be effectively harnessed. The European Parliament should be integrated in the consultation and decision-making process with experts and Members being fully involved in developing actions and policies in the field. The oversight of the European Parliament can ensure full transparency and continuity in the supervision of the targets fixed within this strategy for digital education.

5. **Establish clarity about how and by which actor different strands of the strategy will be delivered and measure that delivery.** In line with the principle of subsidiarity, the design and delivery of education and training falls within the exclusive competence of the Member States, with the Union playing a coordinating and supporting role. What that means for digital education is that systemic reform on the ground depends on a range of actors. The revised DEAP should be clear about the role different actors can and should play in delivery. Promising EU initiatives, like EU Code Week, the e-twinning network in Erasmus+, and the Digital Skills and Jobs Coalition, must complement national initiatives. National action should be supported with guidelines for the Member States to help ensure that policy responses are calibrated with factors like demographics, level of development, and business climate. There also needs to be robust measurement (not merely reporting) of the DEAP's implementation, especially where Union funding is being provided. A better integration of education, specifically digital education, into the European Semester format could ensure continuous measurement of the efforts put in place to deliver upon the targets of the European strategy for digital education.

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