



September 2020

PRINT IS ESSENTIAL FOR THE FUTURE OF READING AND EDUCATION



Preparing education to be future proof is vital, but it must be recognised that digital education is not automatically better by default. The wide body of independent academic research on this topic clearly demonstrates that urgent action must be taken to ensure pupils' reading comprehension and critical thinking skills are not irrevocably damaged by the rapid and unsubstantiated introduction of screen reading in schools.

The rapid shift towards 'digital by default'

Classrooms across Europe are increasingly digitised, with iPads, laptops and other digital devices more-and-more commonly used by students and teachers alike. The toolbox of educational materials at learners' fingertips has grown and continues to do so. Young students – often described as 'digital natives' due to growing up entirely in the digital age – are entering very different learning environments than most adults remember. The pace of such change has been rapid. The COVID-19 pandemic has exacerbated such trends, moving us closer to a 'digital by default' approach to learning.

In such an environment, suppliers of educational materials are rolling back their offer of printed resources (e.g. textbooks) in favour of digital versions. Moreover, school libraries are disappearing at a fast rate, with schools in lower socioeconomic areas the most likely to not have a dedicated library space. Schools and pupils are beginning to be left with little choice but to opt to read digital versions, or to pay twice for content if they wish to print online resources themselves at home. This will ultimately leave more students at risk of exclusion, exacerbating the polarising effects of the digital divide on education.

Digital learning tools clearly do (and should) play an important role in learning environments with the right support for students and training for teachers. But there are situations in which digital tools are scientifically proven to be worse for learning than printed materials: e.g. reading. It is essential to continually question whether new, digital tools are proven to offer a learning advantage

¹ https://www.bbc.com/news/business-48998789

² https://www.greatschoollibraries.org.uk/news





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over print: a technology of well-established strengths. Sometimes digital is not best. Print and digital materials must co-exist for a healthy, educated and future-proof education system.

What the science says

An independent research network (COST Action) of over 120 scholars and scientists of reading, publishing and literacy from 33 countries concluded the COST Action E-READ Initiative ('Evolution of Reading in the Age of Digitisation') in 2018.³ They assessed the impact of digitisation on reading practices in multiple studies. The results demonstrate a clear learning advantage for print "when reading for deeper comprehension and retention", regardless of whether someone is a 'digital native' or not.

Key findings include:

- "A meta-study of 54 studies with more than 170.000 participants demonstrates that comprehension of long-form informational text is stronger when reading on paper than on screens, particularly when the reader is under time pressure."
- "Digital environments also pose challenges. Readers are more likely to be overconfident about their comprehension abilities when reading digitally than when reading print, in particular when under time pressure, leading to more skimming and less concentration on reading matter."
- "Contrary to expectations about the behaviour of 'digital natives', such screen inferiority
 effects compared to paper have increased rather than decreased over time, regardless of age
 group and of prior experience with digital environments."

Based on this seminal research, it must be explicitly addressed in the European Commission's New Digital Education Action Plan that digital education tools should only be promoted when it is proven to improve learning outcomes. At the very least, digital tools should not be promoted indiscriminately when they have been proven to provide lesser learning outcomes, such as with reading. It is necessary to make this explicitly clear in any European Commission proposal otherwise there is a risk that the opposite will be assumed due to the shift in thinking towards 'digital by default'.

³ Stavanger Declaration (concluding document of the COST Action E-READ Initiative): https://ereadcost.eu/stavanger-declaration/





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Recommendations

Key recommendations of the Stavanger Declaration⁴ include:

- "Teachers and other educators must be made aware that rapid and indiscriminate swaps of print, paper, and pencils for digital technologies in primary education are not neutral. [...]
 They may cause a setback in the development of children's reading comprehension and emerging critical thinking skills."
- "It remains important that schools and school libraries continue to motivate students to read paper books, and to set time apart for it in the curriculum."

INTERGRAF RECOMMENDATIONS

- Take into account in the New Digital Education Action Plan that not all digital progress brings benefits e.g. for reading;
- Promote the use of printed materials in schools and other education environments unless there is a proven learning advantage of digital;
- Support more independent academic research on the effects of digitalisation on reading comprehension and critical thinking skills;
- Develop more and better guidelines for the implementation of digital technologies at European level (especially in education) – including identifying and promoting good practices in the area of education and reading;
- Support national implementation of the recommendations of the COST Action E-READ initiative;
- Foster more interaction between academics publishing research about reading comprehension and policymakers / schools / education bodies;
- Encourage Member States to ensure that schools require and facilitate students to read printed books – including setting time apart in the school curriculum for this.

⁴ Ibid.





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Failure to urgently act on the advice given in this position paper creates an obvious, long-term risk that students' learning outcomes will be negatively affected by the increasing tendency of schools and other learning providers to promote reading on digital devices, instead of in print, without the necessary tools and strategies to ensure this does not cause a setback in reading comprehension and critical thinking skills. Digital tools are not always best for education.

Policymakers, schools, educators and parents across Europe must be made aware that reading on a screen without the necessary supporting tools hinders children and young people's learning potential. Digital tools absolutely have their place in learning environments, but not in every situation. Screen reading should not be introduced if it will be detrimental to the development of children and young people's reading comprehension and critical thinking skills, which a large body of independent academic research shows that it is. Resources that are proven to facilitate comprehension and critical thinking, such as printed books and informational texts, already exist and should not be overlooked just because they fall into the category of traditional media.

The European printing industry is made up of 110,000 printing companies (95% SMEs), which employ 600,000 people and generate a combined turnover of €79 billion.

Intergraf is the European printing industry association, representing employers in this sector. We are a Brussels-based membership organisation with 21 members from 20 countries. Our primary task is to represent and advocate for the printing industry in Europe, working with European Union to support the sector's competitiveness through advocacy, information-sharing, networking, social dialogue and projects.