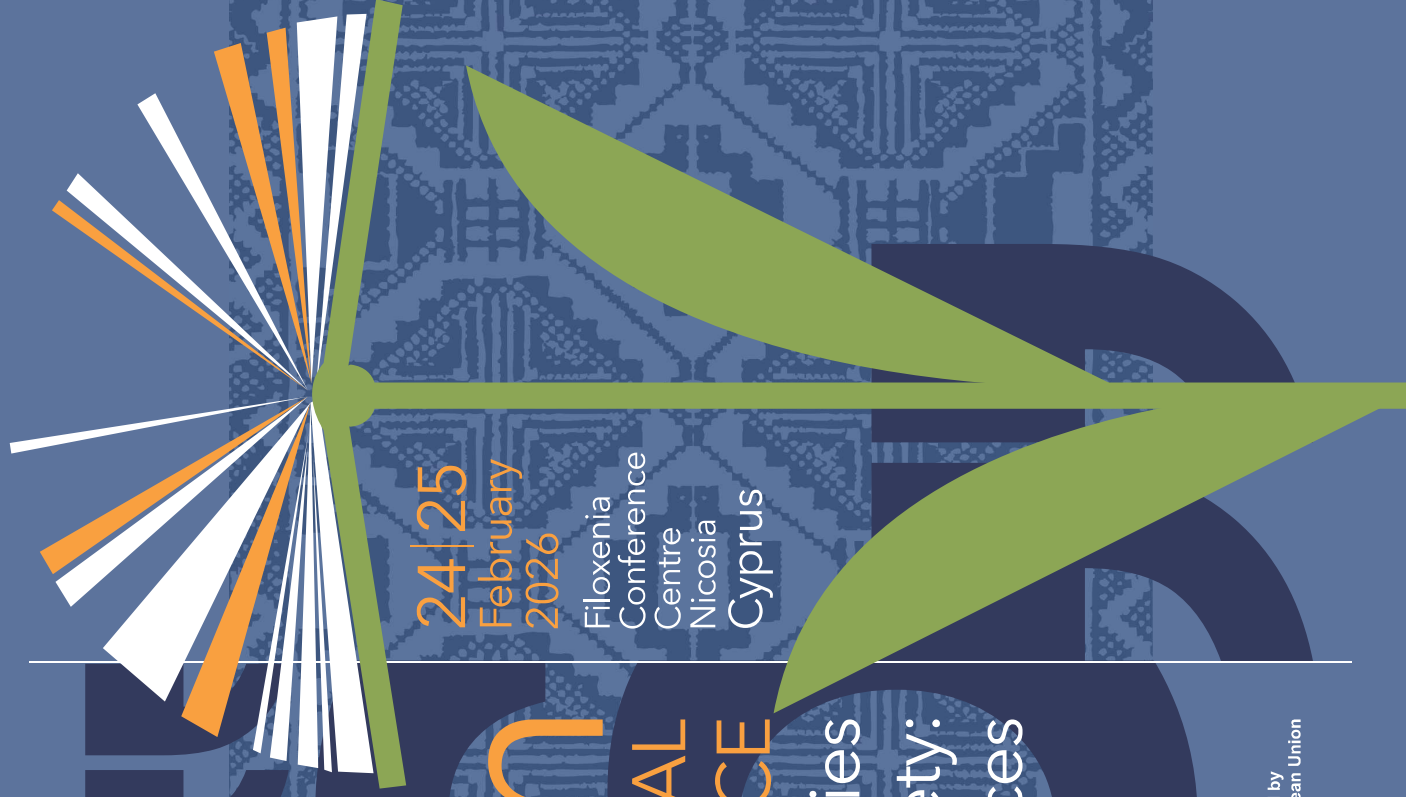




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Literacies
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From Skills To Practices



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Situated Professional Development for Embedding Data and Civic Literacies in STEAM Education

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This presentation explores how a context-sensitive professional development (PD) program can foster multiple literacies—data, digital, civic, and interdisciplinary—by embedding data science and social justice into STEAM education. As part of the EU-funded DataScEd4CiEn initiative, a year-long PD program at The English School in Cyprus empowered teachers to co-design and implement real-world, data-rich learning scenarios. Using a collaborative, design-based model, an interdisciplinary team of educators from Science, Mathematics, Computer Studies, Design and Technology, PSHCE, English, and Art developed two projects addressing contemporary societal issues: one focused on the causes and consequences of food waste, and the other on the social and environmental impacts of fast fashion.

Both scenarios engaged students aged 13–15 in authentic data collection and analysis through CODAP, which enabled them to visualize and interpret complex datasets in meaningful ways. Preliminary evidence shows that the PD broadened teachers' pedagogical perspectives, increasing confidence in integrating civic issues, ethical reasoning, and cross-curricular approaches. Students, in turn, worked with real datasets to investigate and debate global challenges, developing critical thinking, collaboration, and a sense of social responsibility. The iterative cycle of PD, classroom implementation, and reflection cultivated a strong professional learning community and demonstrated the potential of this approach to transform abstract skills into meaningful classroom practices. This case illustrates how collaborative teacher learning can empower educators and students alike to use data for civic action and interdisciplinary problem-solving.