Families Learning Together:
Building Sustainable Computational Fluency in Classrooms and Communities

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How do we build computational fluency for families and communities? Across the nation, community leaders have argued for more attention on this component of schooling. Voices as varied as Bill Gates and Barrack Obama, the mayors of Chicago and New York, and computer science visionaries such as Mitch Resnick at the Massachusetts Institute of Technology, are calling for the integration of computational fluency across all levels of the curriculum.

Families Learning Together (FLT) is building sustainable computational fluency in schools and communities. Computational fluency means being able to fully participate in our increasingly computerized society, at school, work, and home. For comparison, in reading education, fluency is thought of as weaving together multiple, diverse practices, including written and spoken discourse, social identity, gender, and affect. In the 21st century, learning to program computers for expressive purposes (aka: coding) is essential for this kind of meaningful participation in our nation and world.

The guiding premise of FLT is that culturally responsive, family-centered learning strengthens computational fluency in schools and communities. Following community education models, FLT workshops interweave interest-driven learning with teaching methods based on art and reading education, and rooted in constructionist computer science education.

FLT is a multi-phase project. Overall, we are looking at short- and long-term pathways to educational and workplace empowerment for families that are underrepresented in STEM and computer science fields. One part of FLT addresses community learning and community building through computational fluency; another part of FLT specifically addresses teacher education. At its core, FLT asks how computer programing transforms learning.

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