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Tiny technology for the world's biggest challenges

How tinyML can redefine Computing Education

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TITLE: How tinyML can redefine Computing Education

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Problem Statement:

- Computing Education has an engagement, image and diversity problem (only 20% of the STEM cohort is female and only 35% study Computing at all)
- The highly practical and creative nature of the subject is not adequately realized in formal curricula
- Practical/Physical Computing using tinyML is a potential solution

tinyML solution:

- Engaging, real world contextualized projects
- PBL/PC using tinyML with dev boards to create 'artefacts'
- Combination of pedagogy, projects, toolchain and hardware to teach in a way that better serves the learner and engages more learners through practical STEM
- Combines the traditionally siloed Math/CS/D&T subject domains in a highly practical way

Impact:

- Improve engagement in STEM subjects
- Inspire the next generation of learners
- Modernize tools in education
- Engage more learners
- Improve D&I in STEM
- Feed the talent pipeline

Call to Action:

- Share tinyML projects in a format suitable for schools
- Run a tinyML PBL session in a local school
- Create tinyML training for teachers
- Develop tools to make tinyML more accessible to learners (think MakeCode or Scratch)