

10 years of coding in the US

- . Women CS undergrads decreased by 2%
- . African American CS undergrads has decreased by 3%
- . Hispanics has increased slightly by 3%

What went wrong

- Syntax first Lack of Purpose Little change in interest & beliefs
- Learning how to code solving
- 3. Not enough social support → attrition at every level

BUILDING Self-Efficacy -at Scale

Exposure

Stories in the media

TV shows/soap operas

Trained Mentors

In-person modeling

Bandura, 1997

Experience

Easy to start

Quick, specific, unpredictable feedback

Social interactions

Goal Setting

Reflection

Expectations

Parents

Peers

Educators

Mentors

Energy

Social interactions

Adrenaline/drama/competitions

Basic human needs are met (not hungry/sleepy)





Girls and Families solving real-world problems



Using AI to identify signs of child abuse from drawings



Invasive weed recognition app for farmers



Robotic Al prototype to remove invasive duckweed



3D augmented reality game for eco-conscious behavior



Mobile app to transfer social work cases between NGOs



App to make learning accessible in remote areas

150,000 participants Mongolia New Zealand

