

Coding for little humans

The Beginning





中田の御用事は、おまかせをうながす。おまかせをうながす。おまかせをうながす。



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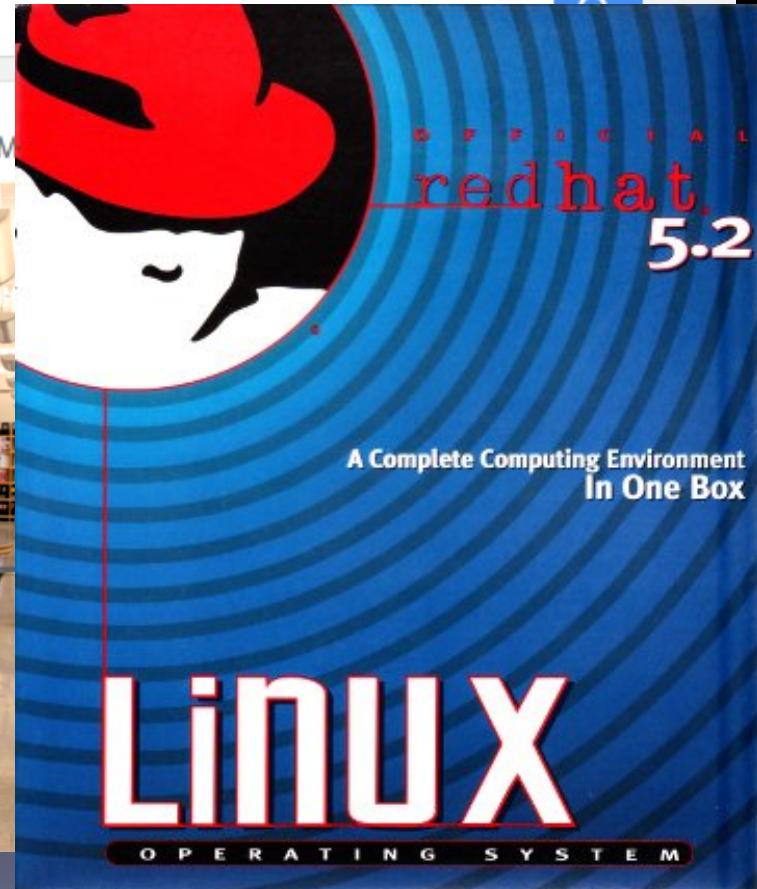
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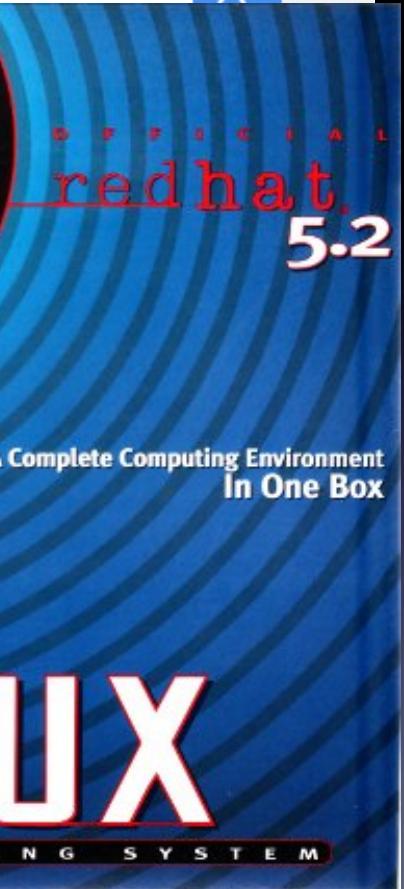
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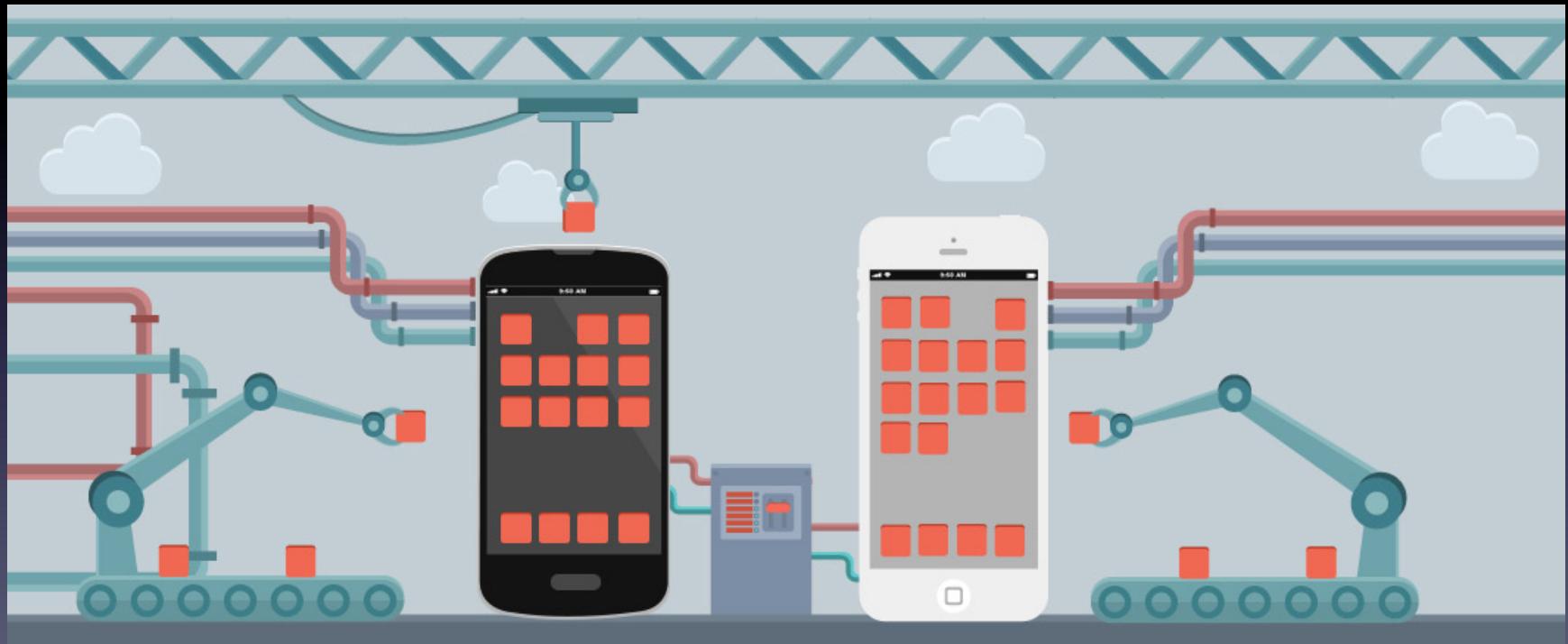


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2016



Code Club



Teaching Experience

NO Teaching Experience

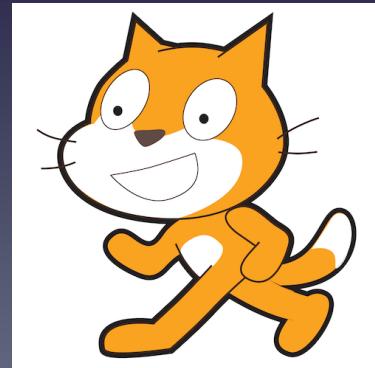


Concerns

I don't know how to deal with children

First Code Club

- Awkward
- Passive helper
- Scratch is so easy it's confusing

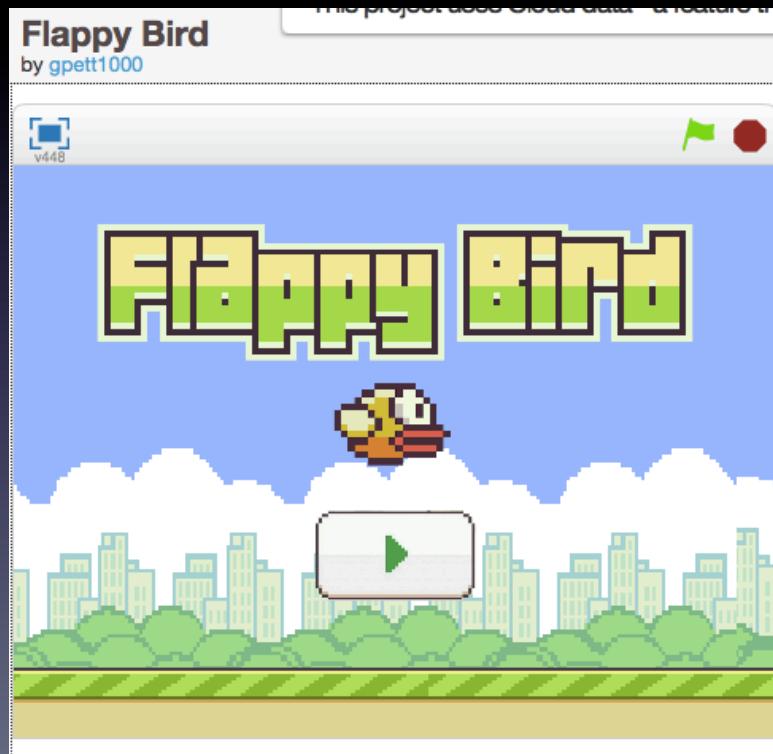


First Code Club

- More confident
- Scratch is actually cool
- It's fun!

First Code Club

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Lessons Learnt

- Kids aren't scary
- They are still humans
- Need some prep work
- Time management is difficult

Second Code Club

- Holiday program
- Less structured
- More flexible and creative

Lessons Learnt

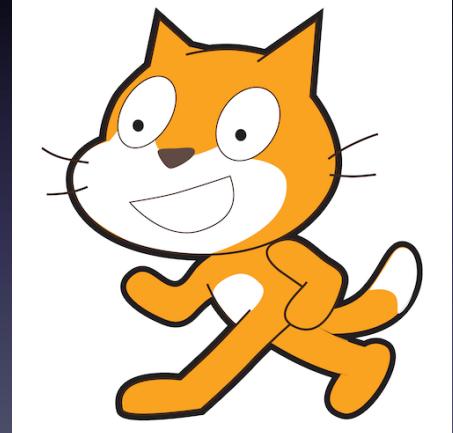
- Experienced volunteers REALLY helpful
- Flexibility and variety is important
- Need a teacher-figure who can manage kids
- Kids can be very noisy

Mini Makers



Mini Makers

- Coding – Scratch



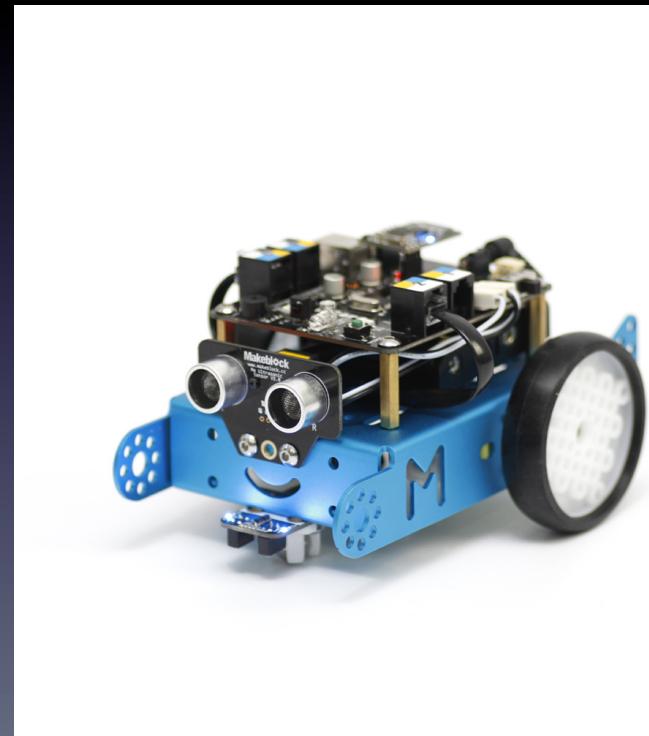
Mini Makers

- Coding – Scratch
- Digital Design – SketchUp



Mini Makers

- Coding – Scratch
- Digital Design – SketchUp
- Robotics - mBots



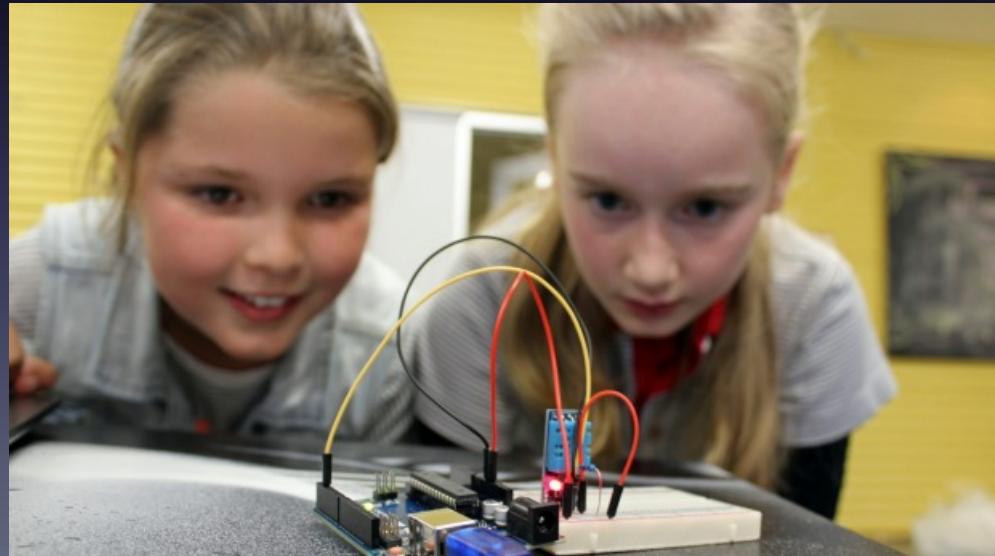
Mini Makers

- Coding – Scratch
- Digital Design – Sk
- Robotics - mBots



Mini Makers

- Arduino
- Breadboard
- Sketch



Challenges

- Computer & Software Setup
- No suitable course material
- Typing is hard
- Time commitment

Successes

- It works!
- Kids enjoyed it
- 65% Girls
- Media coverage



Is it worth it?

Definitely YES

Happiest Jobs

1. Engineers
2. Teachers

The world's happiest jobs
(The Guardian, 2015)

Disruption

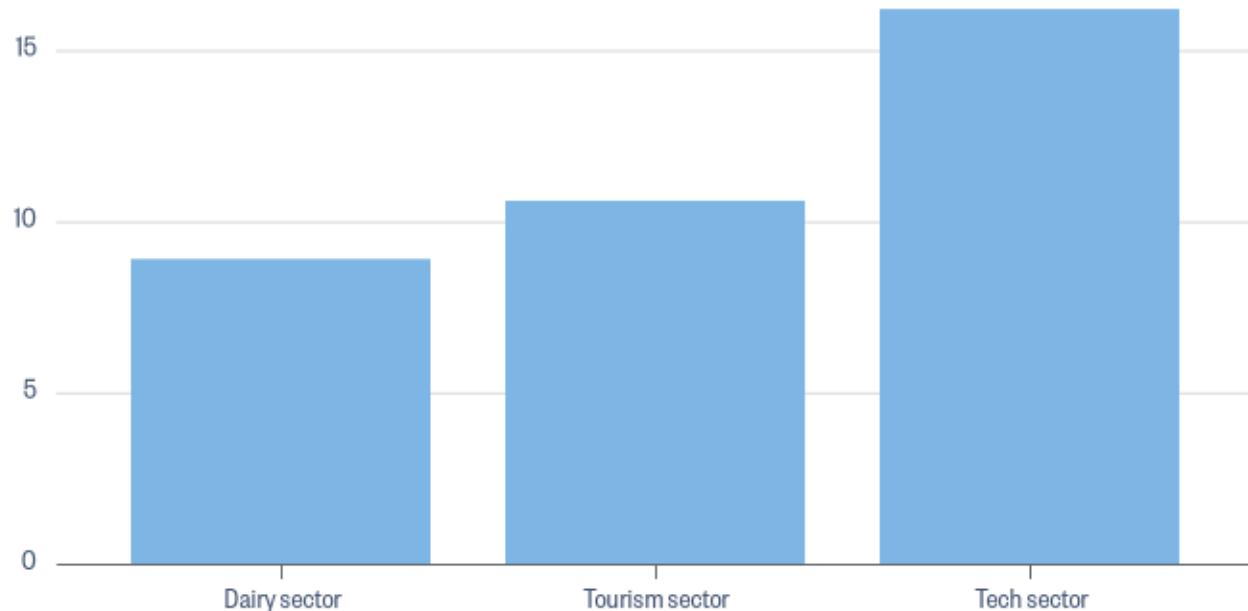
- Disruption, the good kind
- Improved productivity

It's awesome !

Contribution to GDP of the New Zealand tech sector, compared to dairy and tourism

2015, NZD billions (estimated)

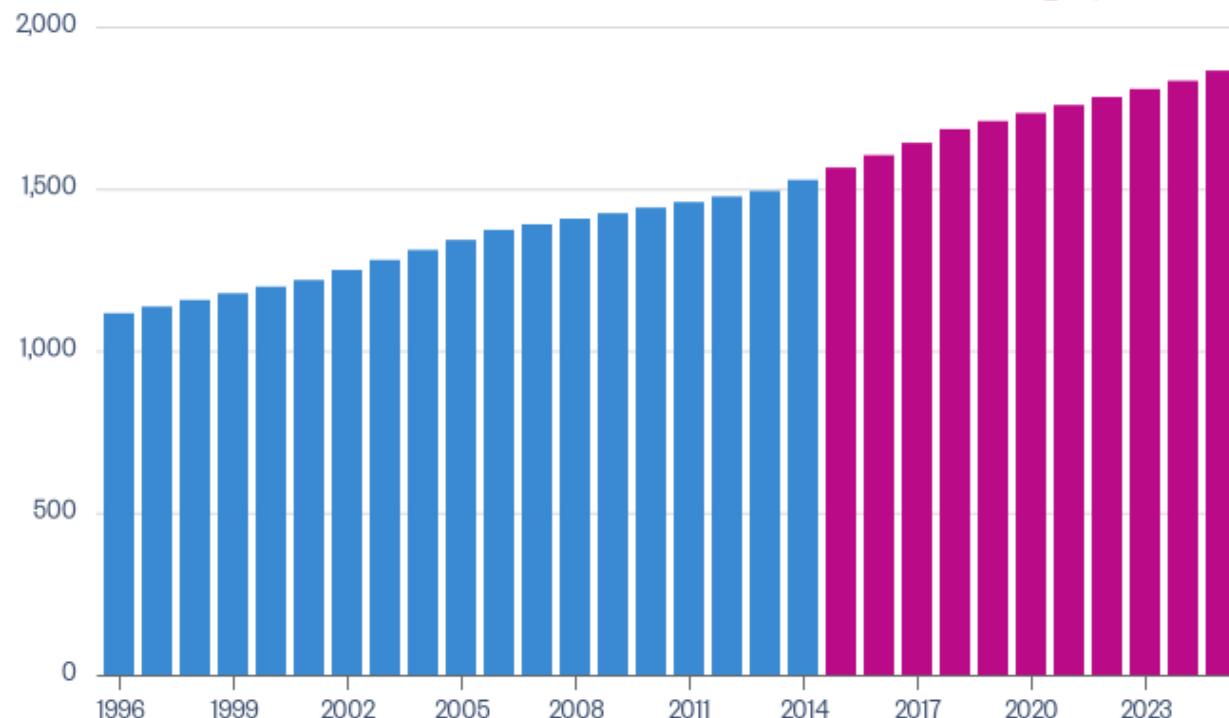
Source: New Zealand Institute of Economic Research (NZIER)



Population of Auckland, New Zealand

1996-2025, thousands

Source: Figure.NZ



NZ Curriculum

- Digital Technology is to be included in schools
- By 2018

Problems?

776,815 students

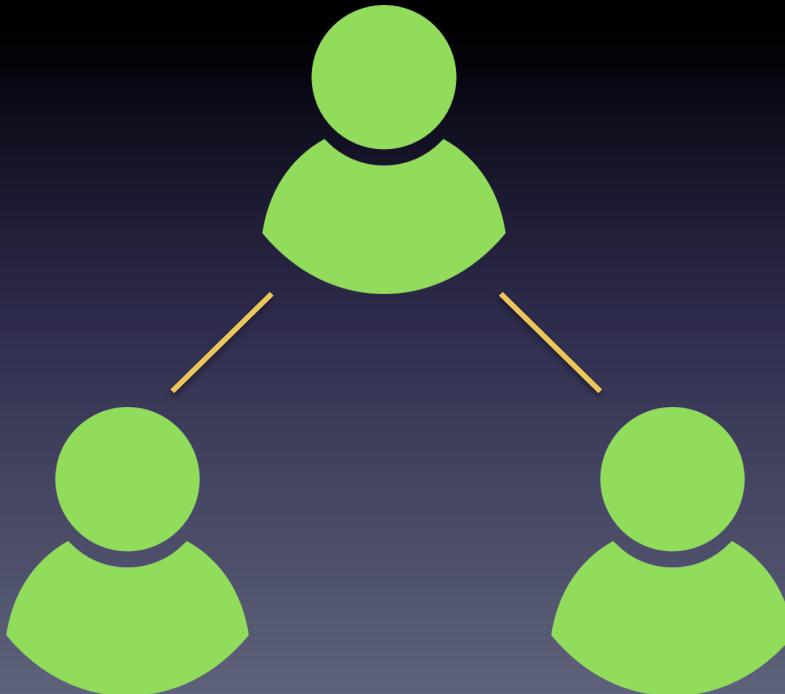
53,861 teachers

Not enough tech savy teachers

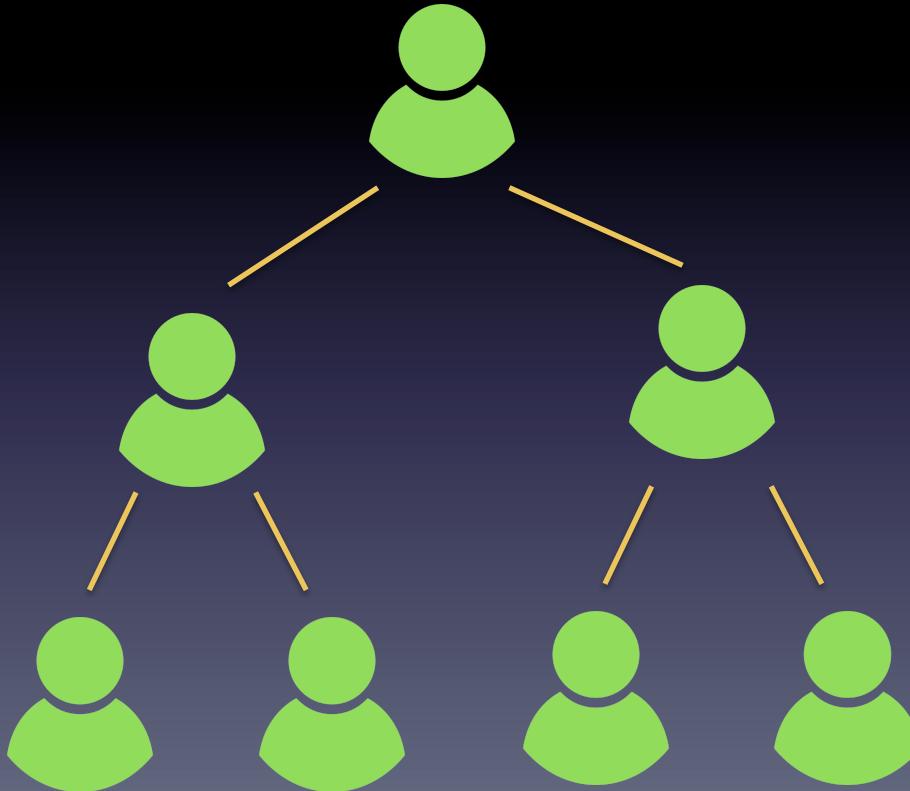
Engineer's Solution

- Exponentially increase the number of trained tech savvy teachers

Engineer's Solution



Engineer's Solution



Change

Changing the mindset

Newton's Laws



Every object in a state of uniform motion
tends to remain in that state of motion
unless an external force is applied to it.

Newton's Laws



For every action
there is an equal and opposite reaction.

In Motion

We are heading in the right direction

For Now

Support your local groups

For Now



***AKL
MINI-
MAKERS***



Girls
in
Tech



Questions