Beyond a Digital Divide: Engineered Inequality and Rethinking Our Relationship to Technology

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How to reach the resources

- Direct link is in the chat
- www.JaredOLeary.com
  - Presentations
    - Beyond a Digital Divide: Engineered Inequality and Rethinking Our Relationship to Technology

Essential questions

- How do we ensure the role of arts and sciences remains part of the teacher preparation process and the experiences in K-12 schools?
- How do we more intentionally situate the role of arts and sciences in colleges of education and K-12 schools?

What's the plan?

- Who am I?
- Beyond a digital divide
- What is engineered inequality?
- Rethinking our relationship to technology
- Exploring resources and examples
- Let's talk and continue to reflect

Who am I?

- All grades K-18+
- Experience in both music education and computer science education
- Director of Education & Research at BootUp PD
- Link to my CV is on my website

Beyond a digital divide

K-8 Technology -> Coding

Is this equitable?

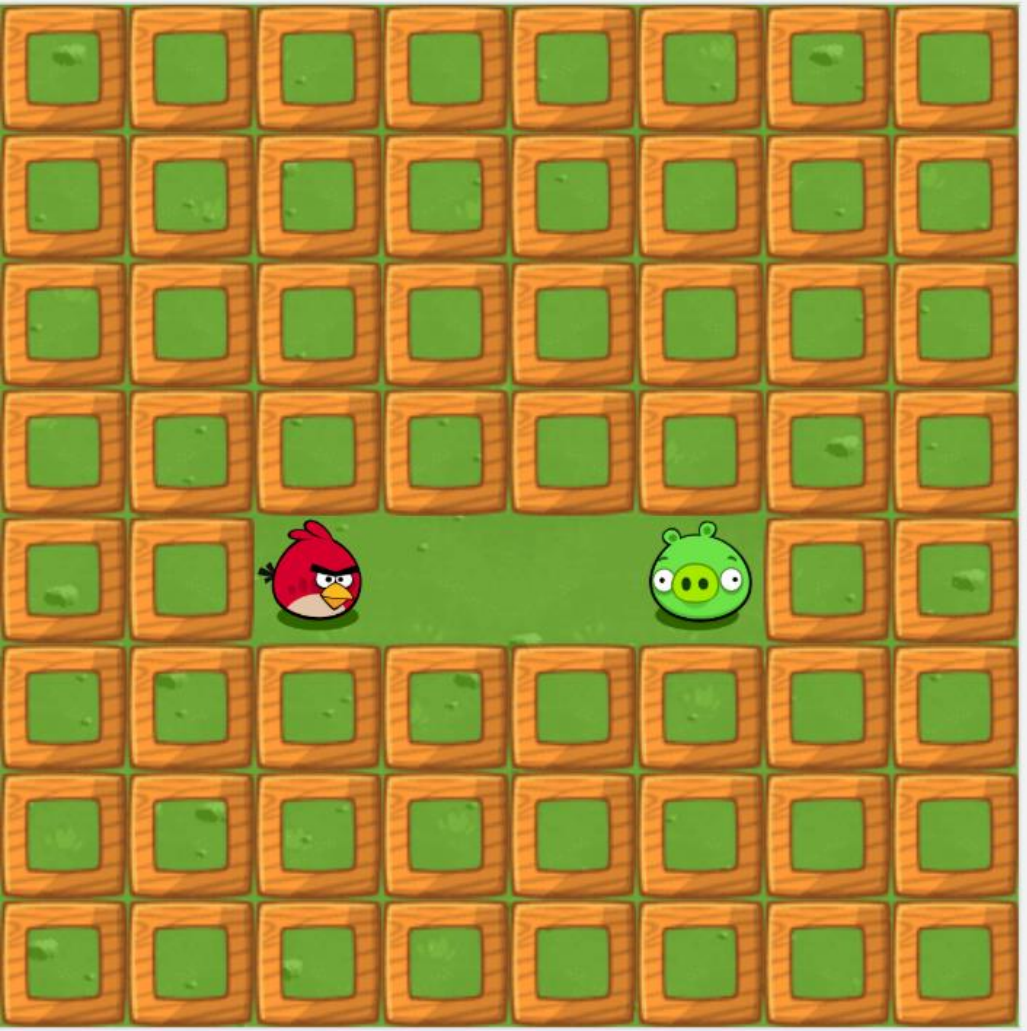
Does this close the digital divide?

Maybe

What is engineered inequality?

Some examples

- **Short video:** Why left-handers can't use right-handed scissors
- **Short video:** This 'Racist soap dispenser' at Facebook office does not work for black people
- **Short article:** 'The Computer Got It Wrong': How Facial Recognition Led To False Arrest Of Black Man
- **Longer article:** Racist in the machine: The disturbing implications of algorithmic bias
- **Book:** Algorithms of Oppression: How Search Engines Reinforce Racism



Run

Instructions

This pig is ruffling my feathers. Help me to find him!

Blocks

move forward

turn left ↺

turn right ↻

Workspace: 2 / 4 blocks

when run

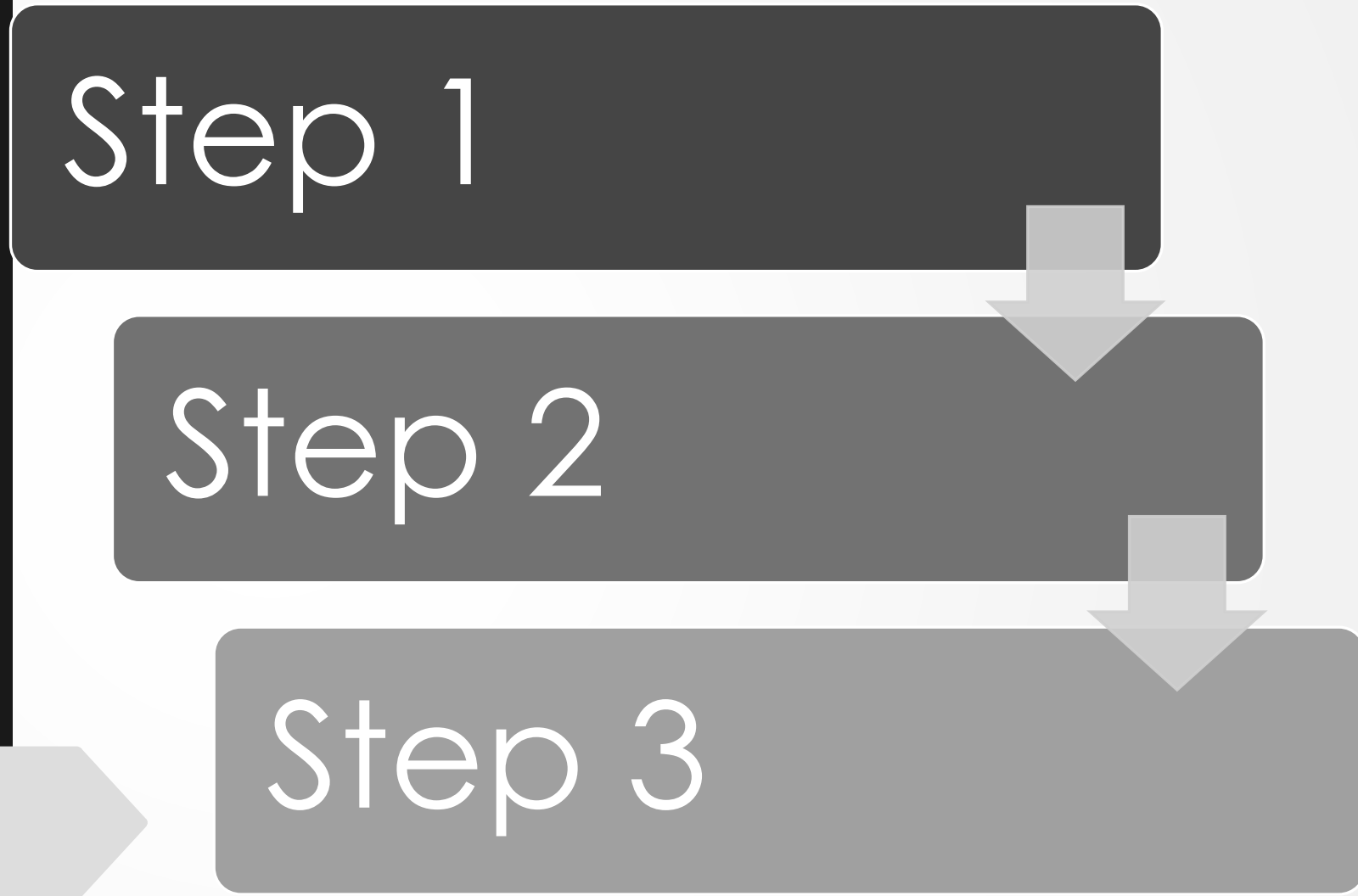
move forward


79
H
L crush is the R's release
5
f
R l l r r L r L R l l r r L R L r r l R l R l R l l r L R l l r r L r l l R l
84
r r L L R l R 3 l r r l R R l r r L r R l L r R R l R L R l l r L r R l L
89
I
L r R l r r L l R l r r L l r r l R l l R L r L L R l r r l l R L r r l l
93
cross over
R l r r L r L r l R l L r R R l L r R l R l l r L r r L
97
3
3
all pings
J
R l l r r L r r l l R l R l R L R L r r l r L r r L

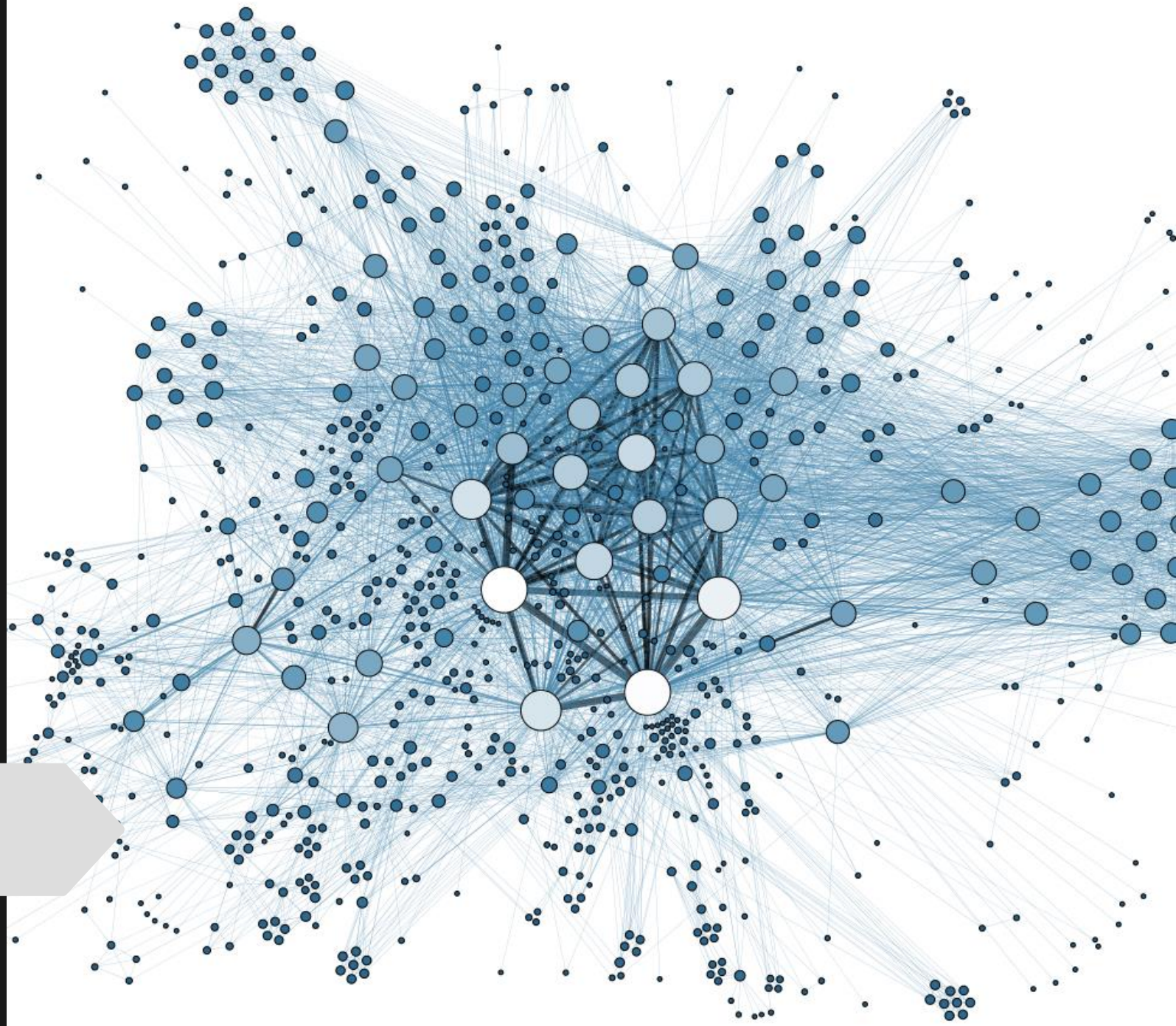
STEM -> STEAM?

Rethinking our relationship to technology

Sequential Design



Rhizomatic Design



Interconnected practices from my dissertation

- Composition practices
- Performance practices
- Maker practices
- Coding practices
- Entrepreneurial practices
- Visual art practices
- Community practices

Music-related hardware practices

- **Video:** I Turned a 1920's Typewriter into an EDM Drum Machine
- **Video:** Music Machines at Scratch Day MIT
- **Video:** BEAT JAZZ by ONYX ASHANTI
- **Images:** Hardware modifications shared within my dissertation
- **Playlist:** Hardware practices

Exploring resources and examples

Additional Music-Related Hardware Practices That Challenge Technological Determinism

Playlist With Lectures And Discussions On Rhizomatic Learning

Let's continue to talk and reflect

- How might we modify or create technologies for (and with) the students we work with?
- How might we engage in pedagogical practices that encourages multiple ways of learning and engaging with technology within a shared space?
- How might we encourage companies to intentionally design hardware and software that can be modified by the people who use them?