A K-8 Nexus Between Music Creation, Sound Design, and Computer Programming

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What's the plan?

- Some context
- Exploring this nexus . . .
- Exploring this nexus, together
- Let's talk

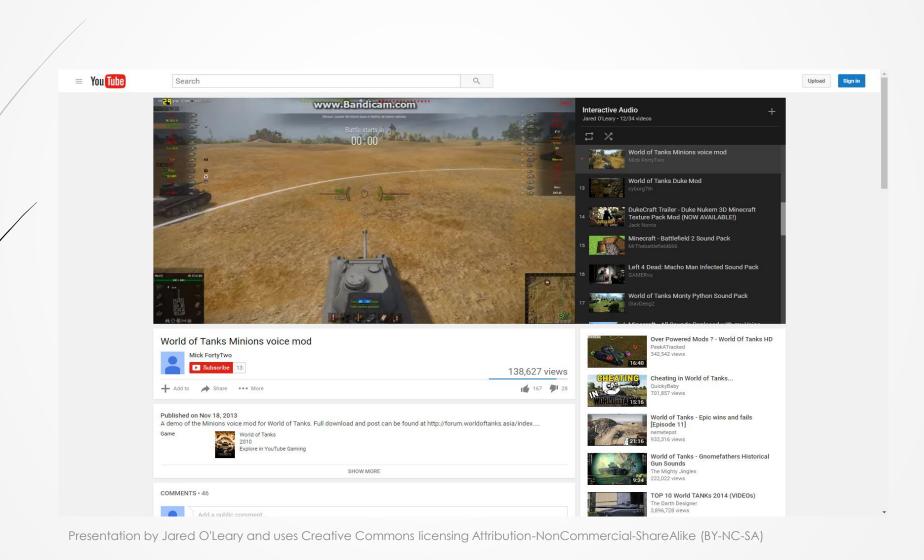
How to reach the resources

- www.JaredOLeary.com
 - Presentations
 - A K-8 Nexus

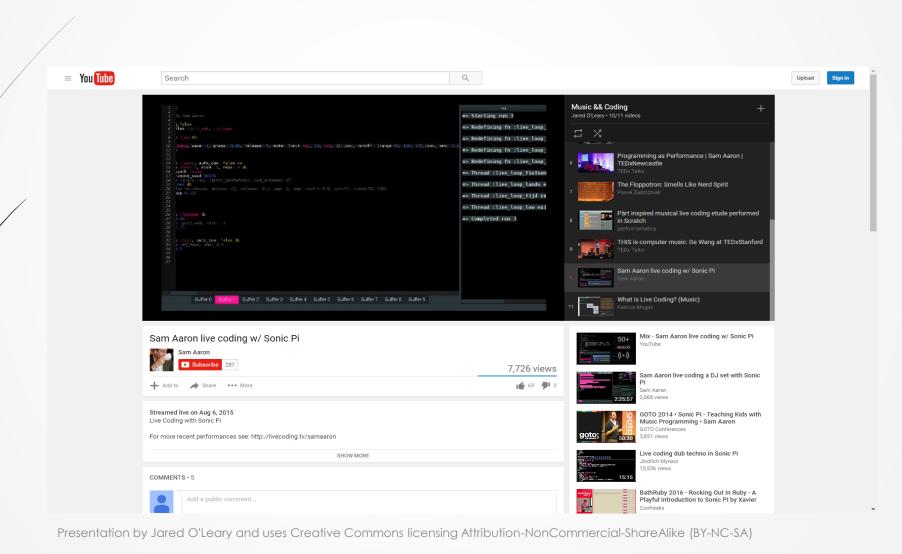




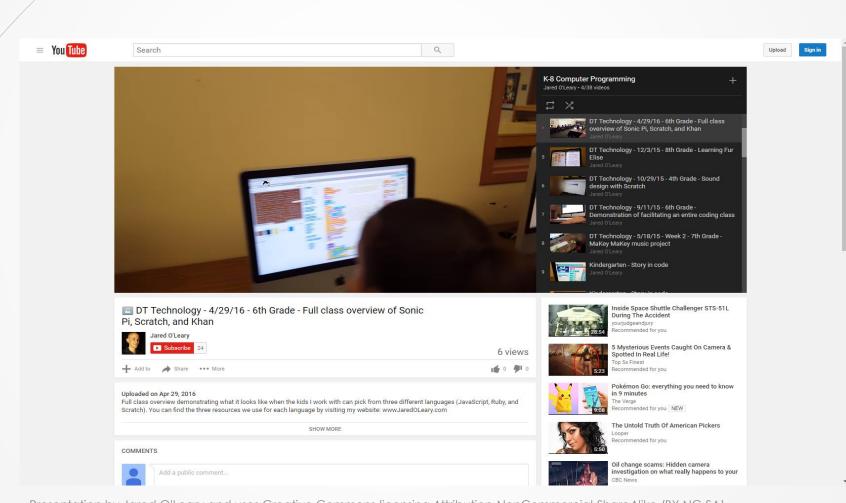
From sonic mods . . .



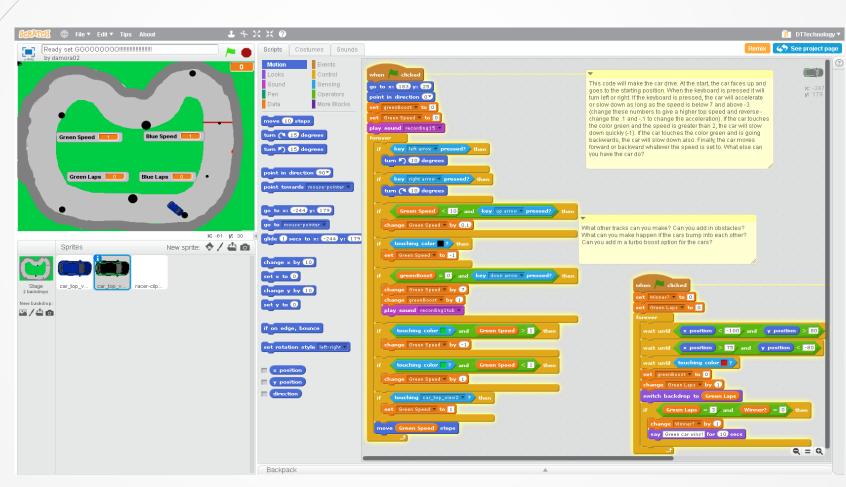
... to live coding ...



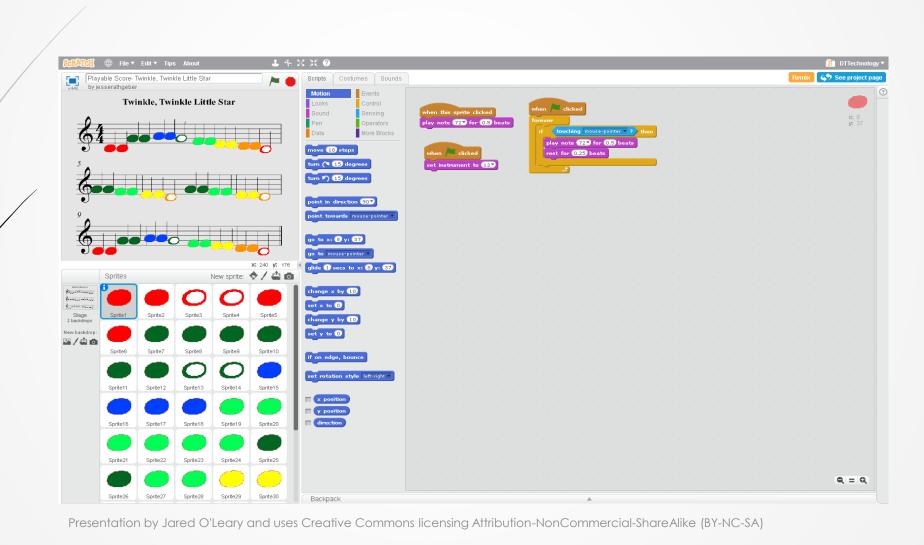
... to computer labs



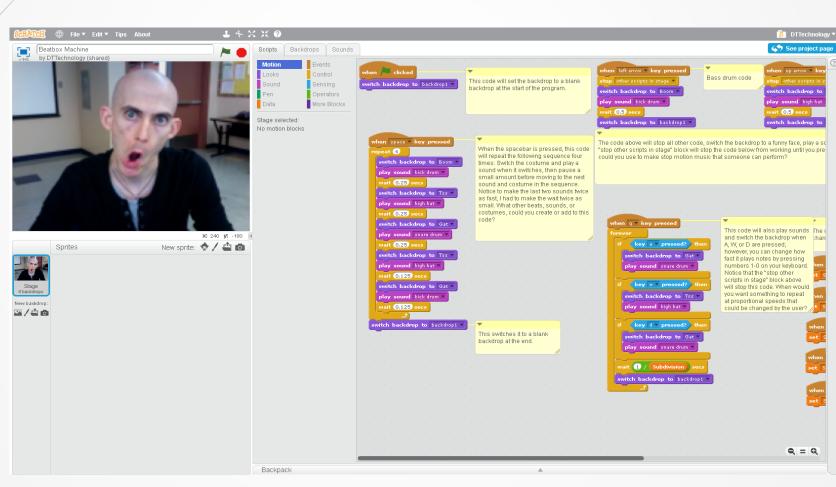
Scratch - Modding



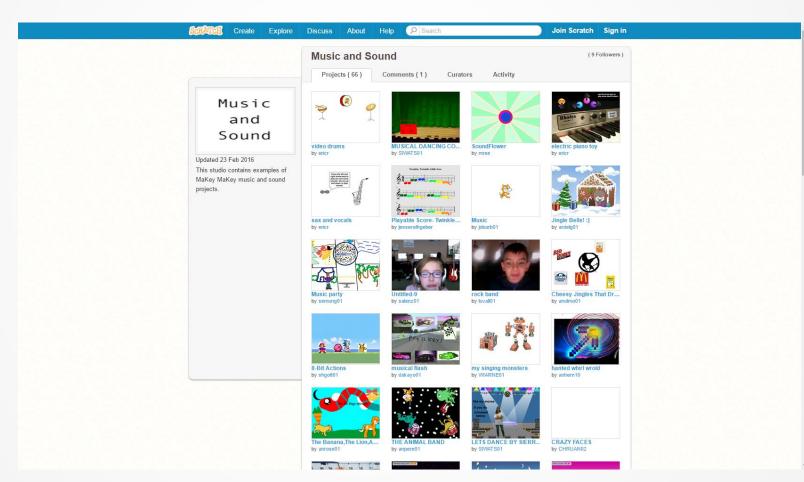
Scratch - Interactive audio



Scratch - Goofy projects



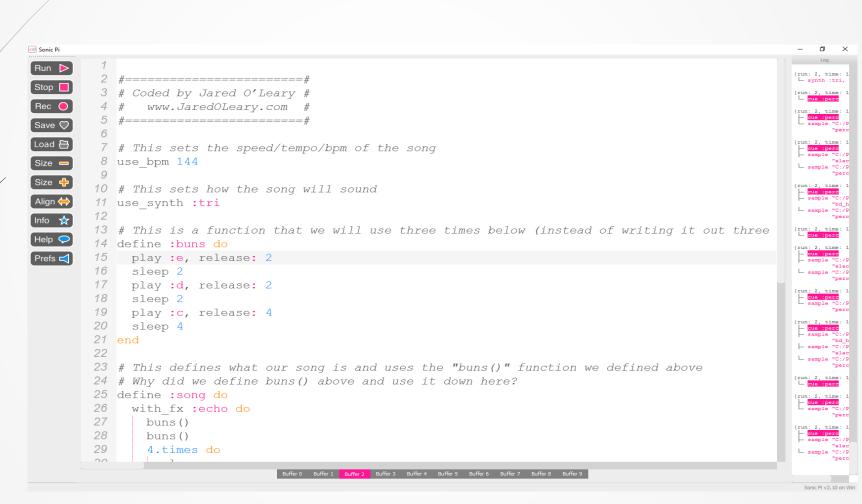
More Scratch examples



Sonic Pi – Compositions



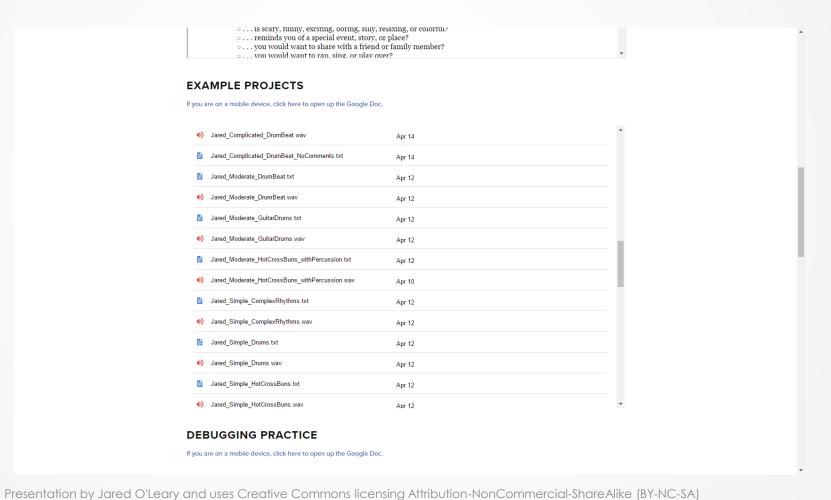
Sonic Pi - Live coding



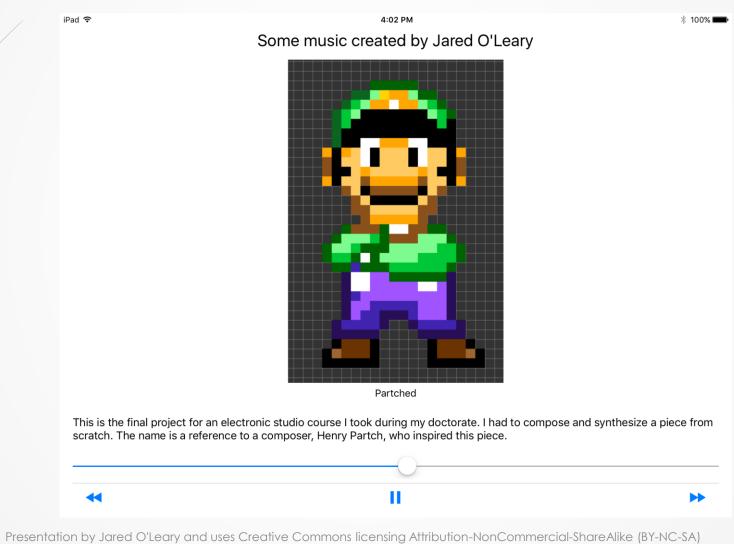
Sonic Pi – Algorithmic music

```
    Sonic Pi
Run 🕨
          2 # Coded by Jared O'Leary #
          3 # www.JaredOLeary.com #
Rec 🔵
Save 🛡
          6 use random seed 4
Load 🖶
          7 use bpm 120
Size -
          8 use debug false
          9
Size 🕂
          10 q = 1
Align \leftrightarrow
         11 e = 0.5
         12 s = 0.25
         13 t = 0.125
         14 \text{ de} = 0.75
Prefs <
         15
         16 \text{ count} = 1
         17 master unquant = 0.05
         19 live loop :time do
              sleep 4
               count += 1
               count = 1 if (count > 4)
         23 end
         25 live loop :floor do
               bd arr = [(ring 10, 5, 10), (ring 6, 10, 6)]
         27
         28
               4.times do
                 bd unquant = rrand(0, master unquant)
```

More Sonic Pi examples



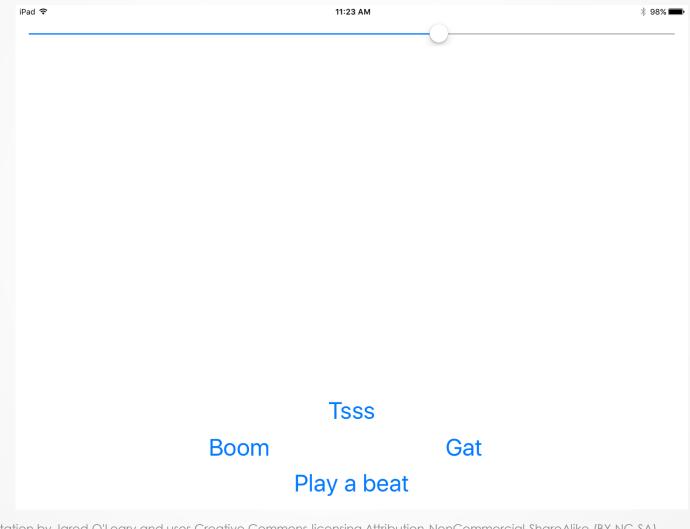
Swift - Music players



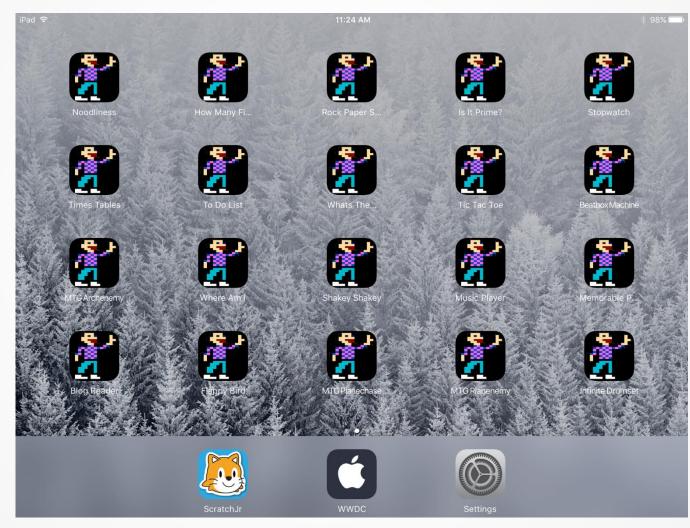
Swift - Goofy apps



Swift – From blocks to text

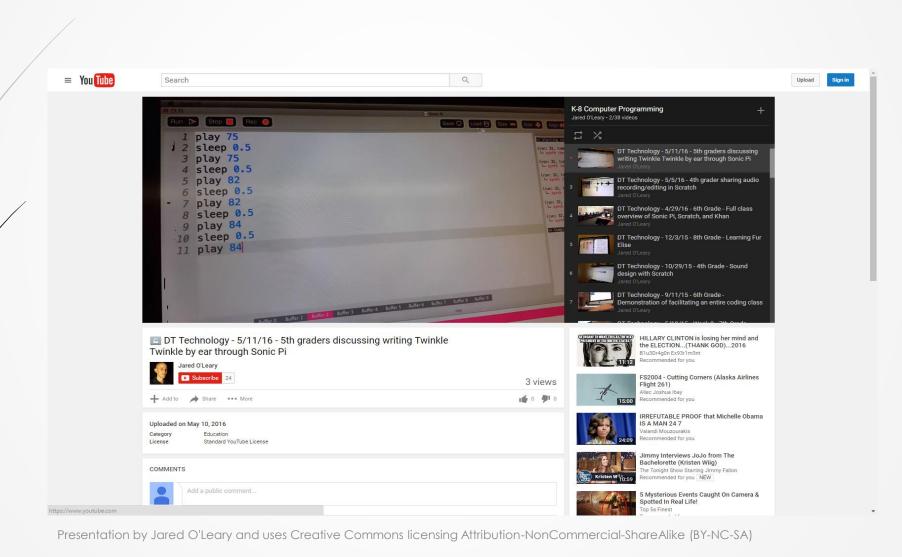


More Swift examples





... by ear

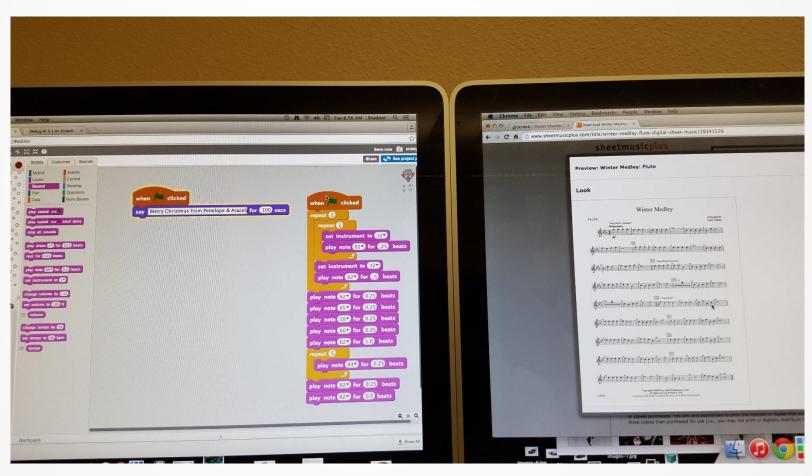


... through standardized notation



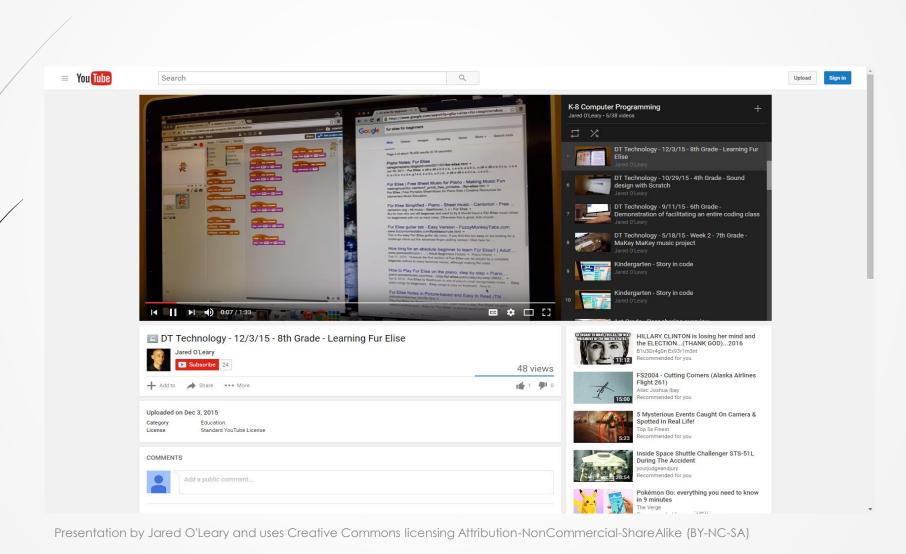
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... through standardized notation

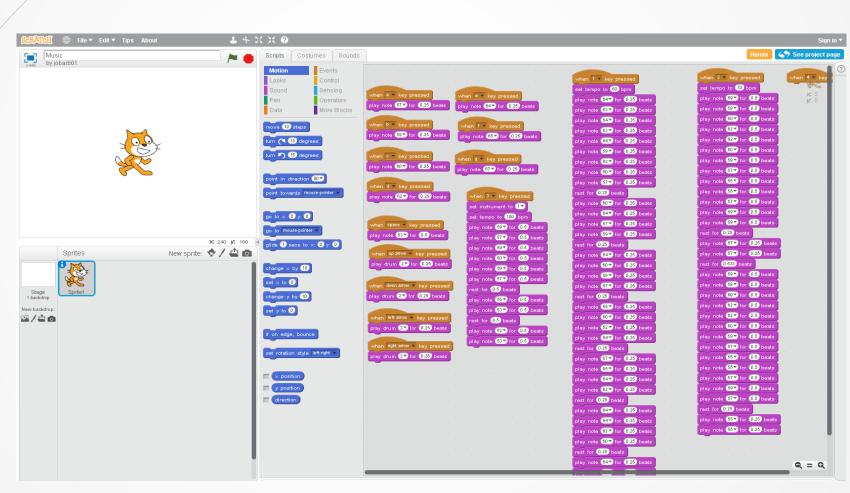


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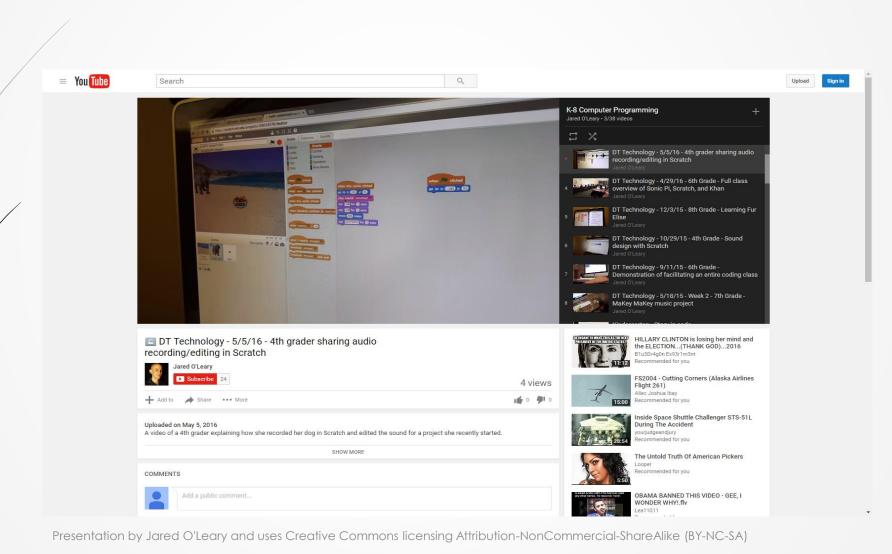
... through tab



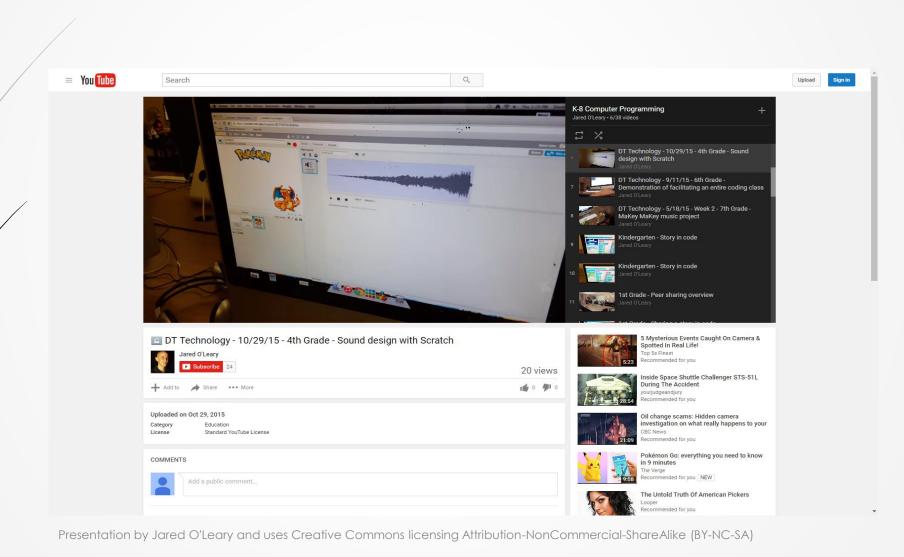
.. through tab



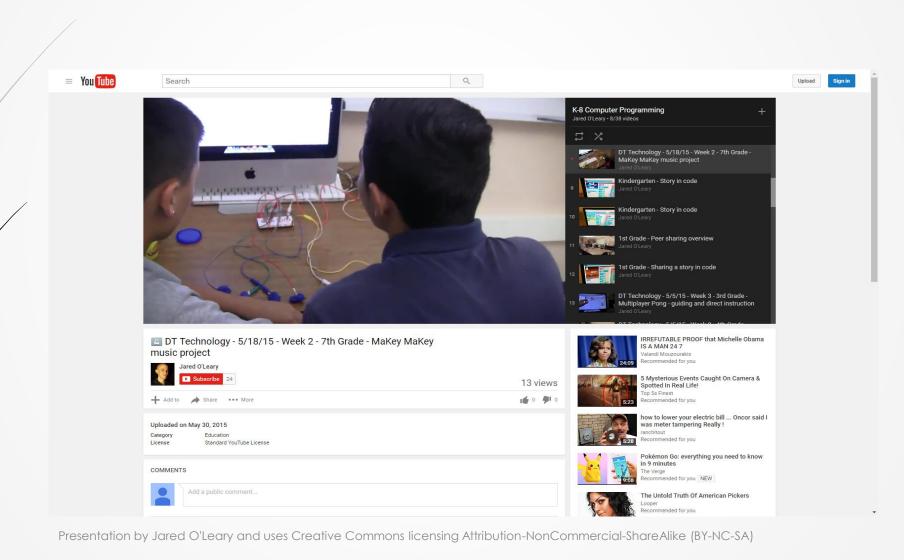
... through recording and editing



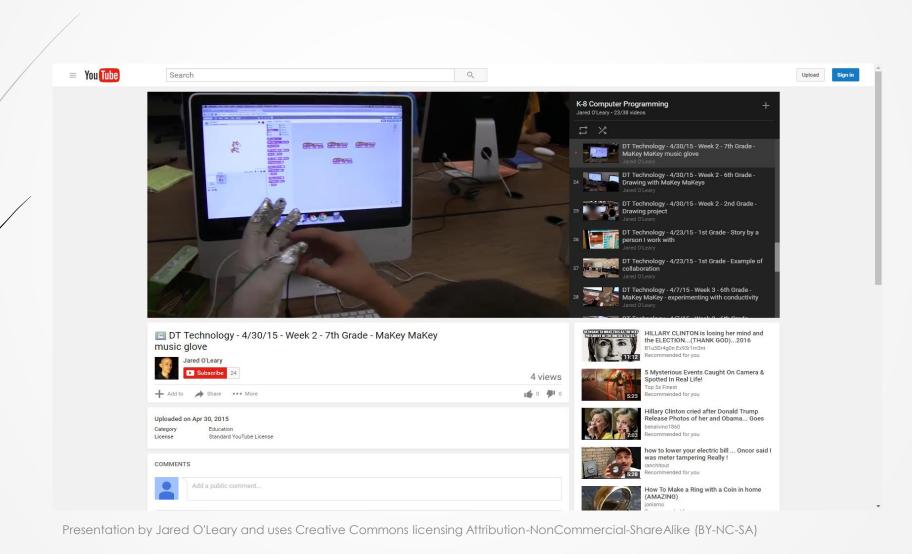
... through exploratory sound design



... through interface design



... through collaboration

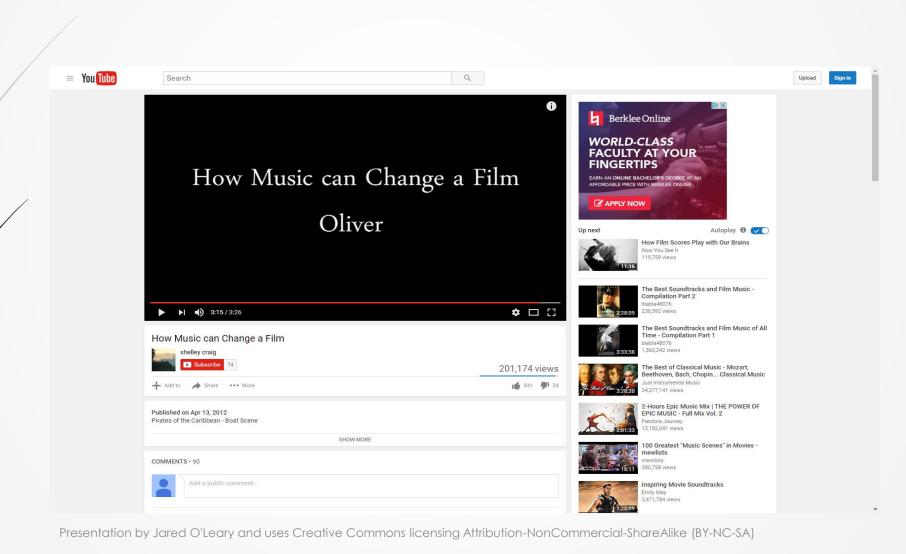


Other examples

- Cellphones
- **DAWs**
- iTunes
- Little Bits
- Performing



Before we explore



Where to find the three videos

- www.JaredOLeary.com
 - Presentations
 - A K-8 Nexus



http://goo.gl/iQu8rD

Let's talk

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