

Tough as Nails & Drawing on Kinship

Rigorous and inclusive educational research in Kentucky Appalachia



Emi Iwatani, Ph.D.

April 13, 2023

Rebuilding community through rigorous and inclusive educational research [Invited speaker session].

American Educational Research Association Annual Meeting, Chicago, IL, United States. <https://bit.ly/TANrefs>



This material is based upon work supported by the National Science Foundation under Grant No. [1923314](#) and [2219401](#). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

Project Organizers



Emi Iwatani

Senior Researcher,
Digital Promise



Traci Tackett

Director of Digital
Literacy, Bit Source



Quinn Burke

Director,
Computational
Thinking Research,
Digital Promise



Aileen Owens

Director,
ThroughlinesEdu



Merijke

Coenraad

Senior Learning
Experience
Designer, Digital
Promise



Pati Ruiz

Senior Researcher,
Digital Promise

District leads



Denise Isaac

High School Instructional Lead,
Floyd County Schools



Mike Bell

Digital Learning Coach
Floyd County Schools



Kelsey Tackett

Digital Learning Coach
Floyd County Schools



Neil Arnett

District Technology Coordinator,
Pikeville Independent School District

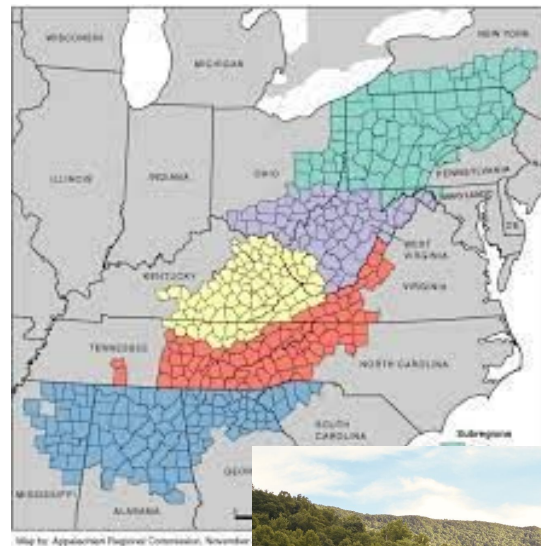


Bobby Akers

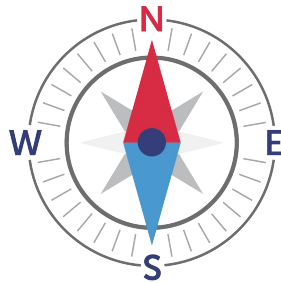
Chief Communications Officer
Floyd County Schools

Kentucky Appalachia

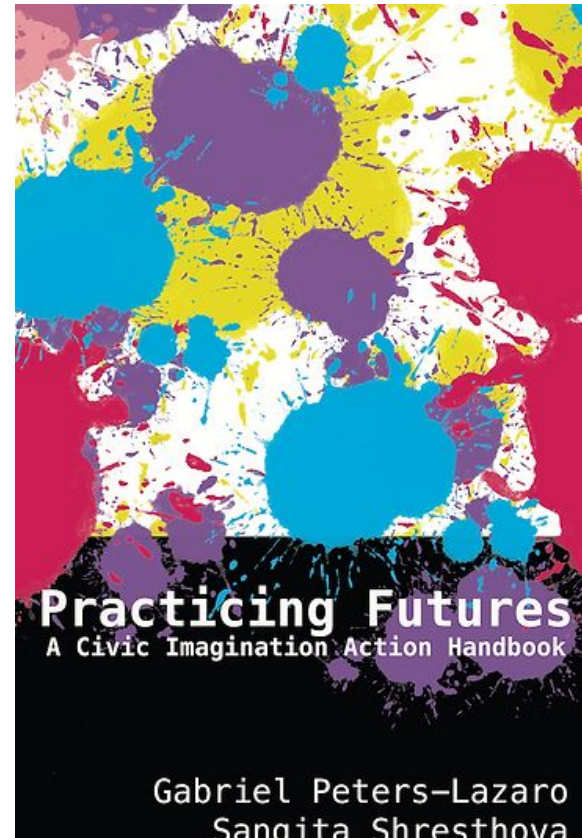
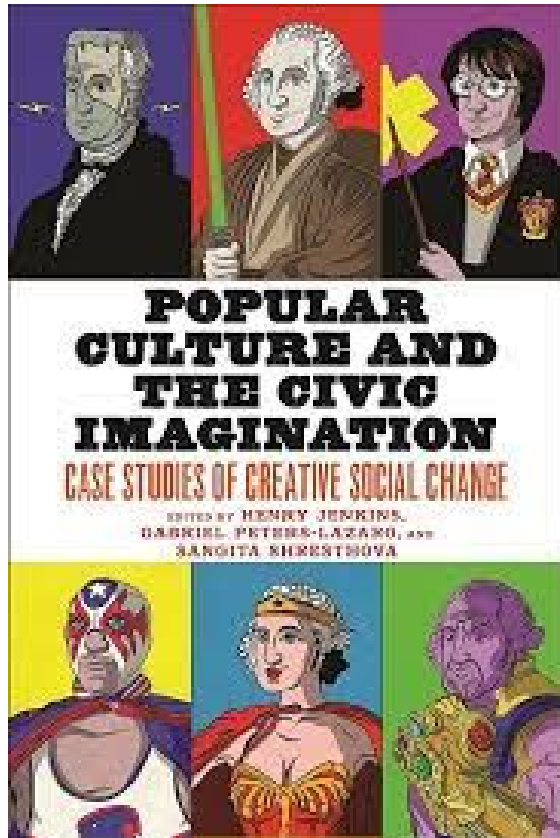
- Eastern Kentucky (yellow)
- “Mountain people” (kinship, strong love of place, egalitarianism, independence, religious worldview, etc; Keefe 2005)
- Coal industry → computer science & entrepreneurship?
- Education leaders invited Digital Promise researchers to help design a K-8 Computational Thinking pathway
- Two NSF CSforAll Research Practice Partnerships (RPPs)



Joys of design research in education



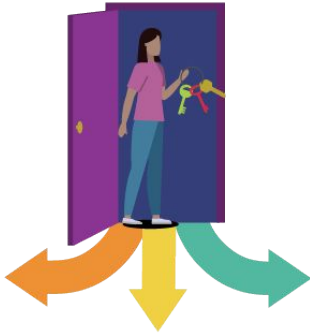
Why RPPs? - Working towards a future for E KY



(1) People can't work toward a future if they can't see it first.*

*Jenkins & Shresthova's rationale for the importance of civic imagination, as summarized by Sam Ford.

circa 1993

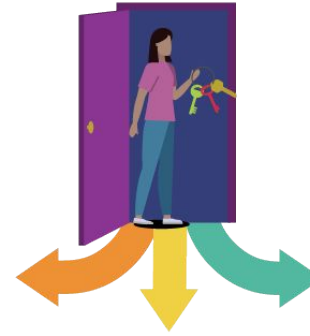


Teacher

Miner

Nurse

2023 and beyond



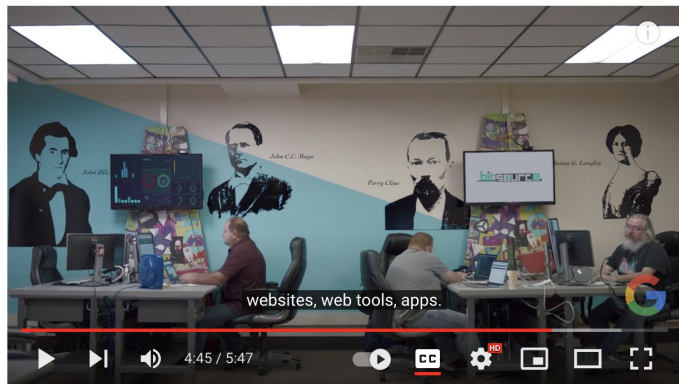
?

?

?

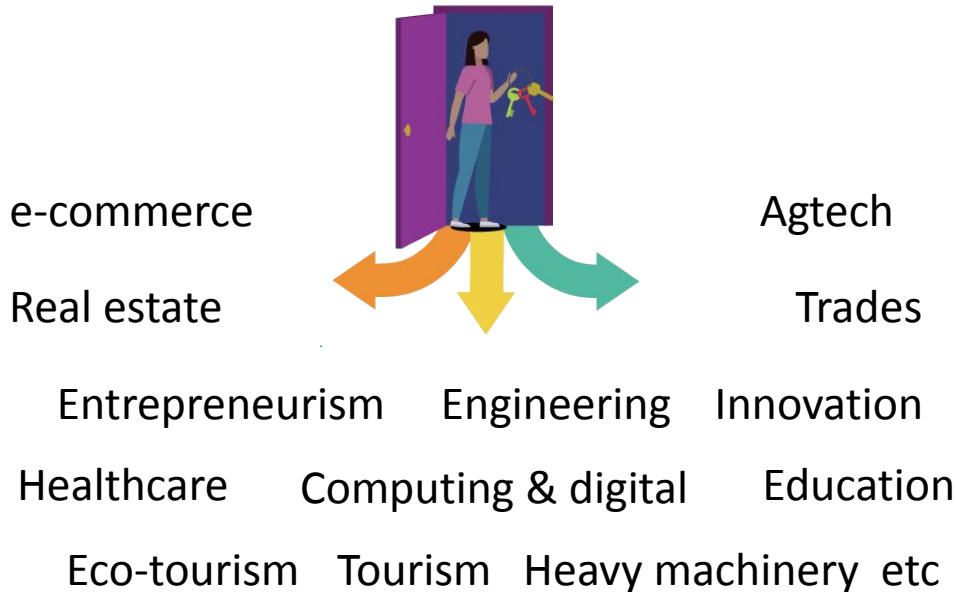
(1) People can't work toward a future if they can't see it first.*

*Jenkins & Shresthova's rationale for the importance of civic imagination, as summarized by Sam Ford.



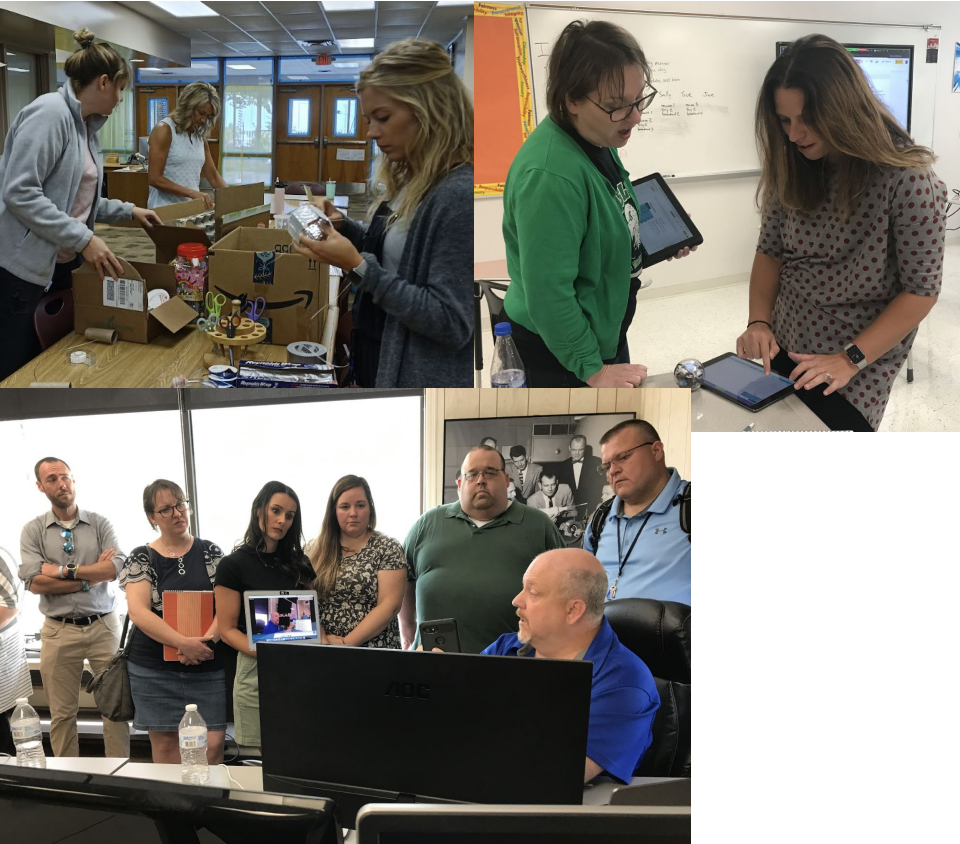
Bit Source: Appalachian ingenuity

2023 and beyond



(2) People don't want to design a future that they aren't in.*

*Jenkins & Shresthova's rationale for the importance of civic imagination, as summarized by Sam Ford.



Great [CT] resources and lessons to use with my students.

The **Appalachian Wireless** presenters were an awesome connection when they conveyed that **the skills they use/need are the exact skills I see in my students**. Big "A-ha" moment for me.

(3) People need to feel a sense of agency or permission to help shape that future.*

*Jenkins & Shresthova's rationale for the importance of civic imagination, as summarized by Sam Ford.

The week has been eye opening, helping me to look at the larger picture. I want to encourage my students to be innovative and proud of their region.

(Teacher, Summer 2022 survey)

Our cultural wealth is rich in:

- *Familial Capital (kinship)*
- *Social Capital*

We aim to improve our student's

- *Aspirational Capital*
- *Linguistic Capital*
- *Navigational Capital*
- *Resistant Capital*

(District leaders, KySTE 2023 presentation)

Research that aims to help people work towards the future, requires **inclusion** because:

- (1) People can't work toward a future if they can't see it first.
- (2) People don't want to design a future that they aren't in.
- (3) People need to feel a sense of agency or permission to help shape that future.

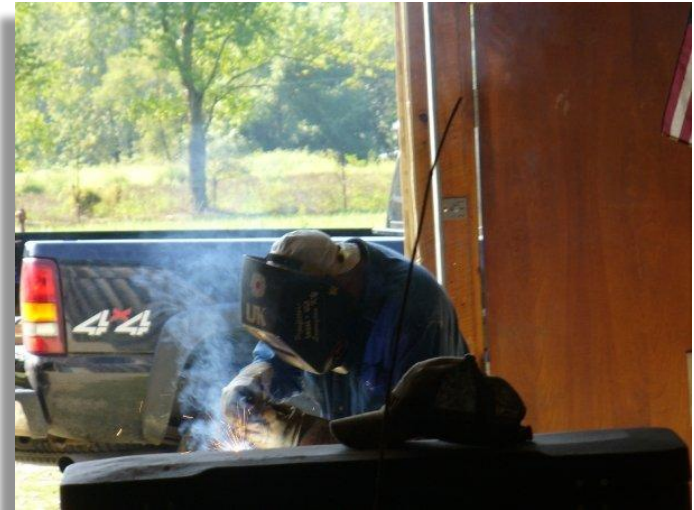
Also, **rigor** (strictness, exactness, rigidity) in our research is applied in

- taking these preconditions seriously (when identifying the interventions worth studying), and in
- the studying.

Our current “Why” - Connecting CT with Appalachian Ingenuity

“Who are the community makers? Who are the creators? Even the historians? ... [T]hat conversation about imparting that Appalachian Ingenuity and how we capture and perpetuate that, for me that’s the biggest driver that has come out of what we’ve done in the past 3 years. It takes [computer science] from novelty to actual change, and it ties it directly to the people on the ground.”

Neil Arnett (Pikeville Independent School District)
reflecting on possible research questions for Drawing
on Kinship



How to Share This Presentation



The information presented in this document is licensed under a [Creative Commons Attribution 4.0 International License](#) and may be adopted, remixed, or used as inspiration for your own innovation efforts. Follow these [attribution guidelines](#) as you use and share this information.