A Living Framework for Abolitionist Teaching in Computer Science

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Grounding Question

"Why, for whom, and towards what ends"

do we teach, practice, and (re)produce computer science?

Gilmore 2011, Tuck & Yang 2018, Philip et al. 2018,

Vossoughi & Vakil 2018, Jones and melo 2021

... and many more

A Living Framework for Abolitionist Teaching in CS

o   Grounding Question ✔

o   Abolition ←

o   Abolitionist Teaching

o   Framework Objectives

o   Framework Praxis

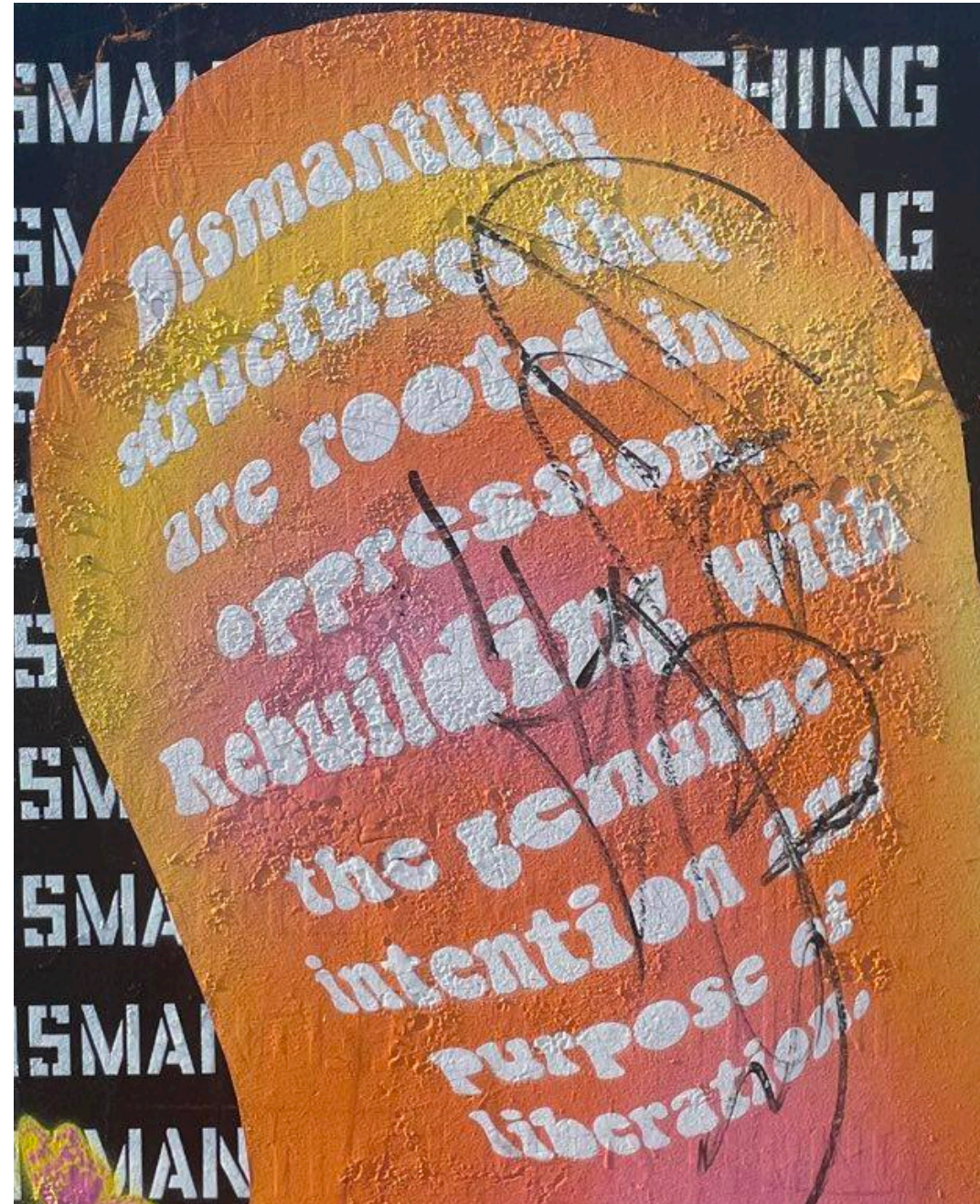o   Applying the Framework

o   Conclusion

Abolition

Image Credit: Trent Kim and Michelle Collado

Identifying
Understanding
Confronting
Uprooting
Dismantling
Destroying

AND

Dreaming
Imagining
Designing
Building
Creating
Protecting

structures and systems
that oppress people

structures and systems
that liberate and sustain life

Examples: the prison-industrial complex (Critical Resistance 2023), the New Jim Crow (Alexander 2011) and New Jim Code (Benjamin 2019), the school-to-prison pipeline (Davis 2003), the educational survival complex (Love 2019), #NoTechForApartheid (DAIR 2023)
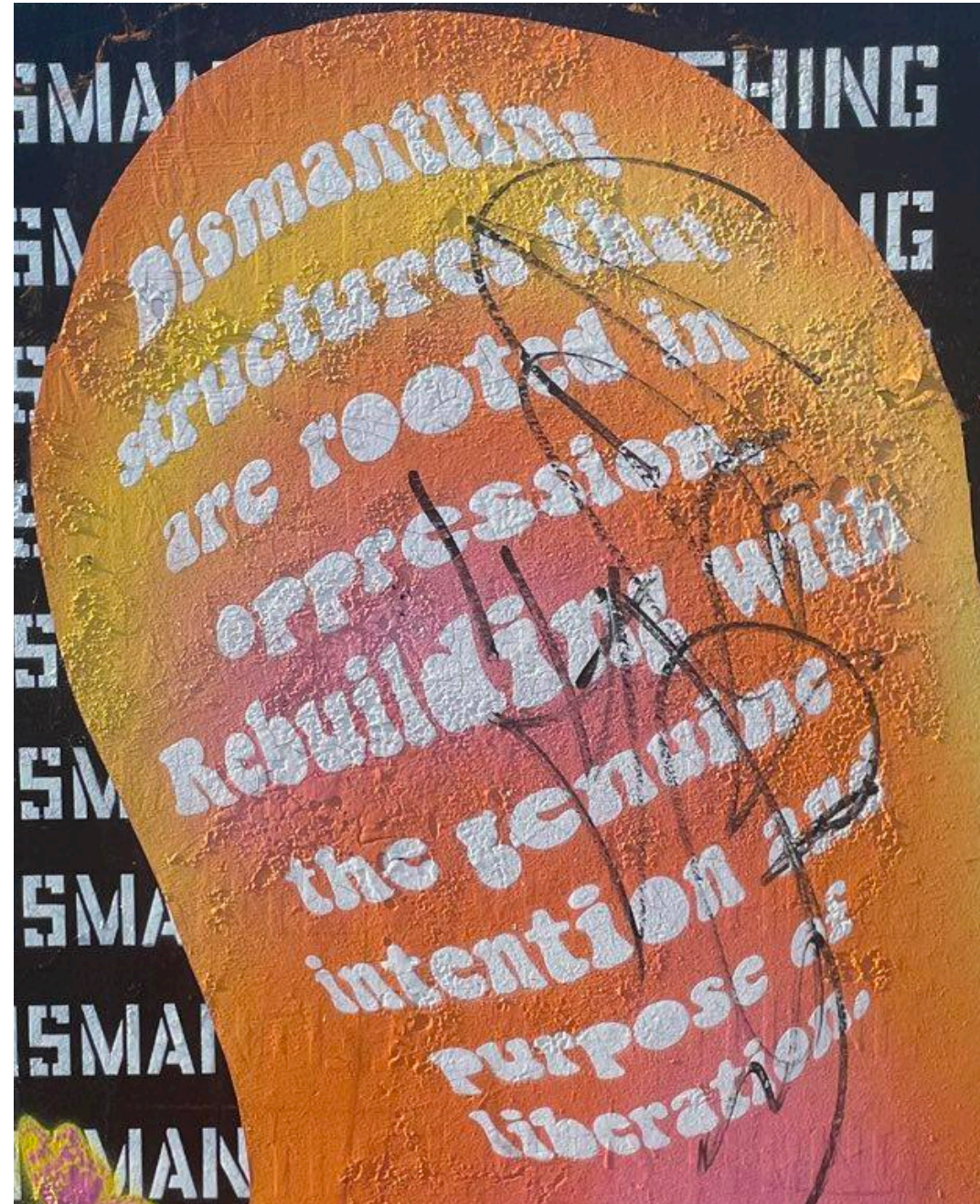
Abolition

Image Credit: Trent Kim and Michelle Collado

Theoretical
Internal
Mental
Spiritual
Emotional

AND

Practical
External
Communal
Tangible
Physical

insight into structures and systems that oppress people

acts that transform those structures and systems into life-sustaining ones

Abolition is PRAXIS:

THEORY (structured thought)

AND

PRACTICE (structured action)

Abolition

While most abolitionist scholarship is rooted in the work of Black scholar-activists positioned in the U.S. South, abolition is a global praxis that has existed in spirit throughout human history.

Any people who work collectively to dismantle oppressive systems and replace them with liberatory ones are engaging in abolitionist praxis.

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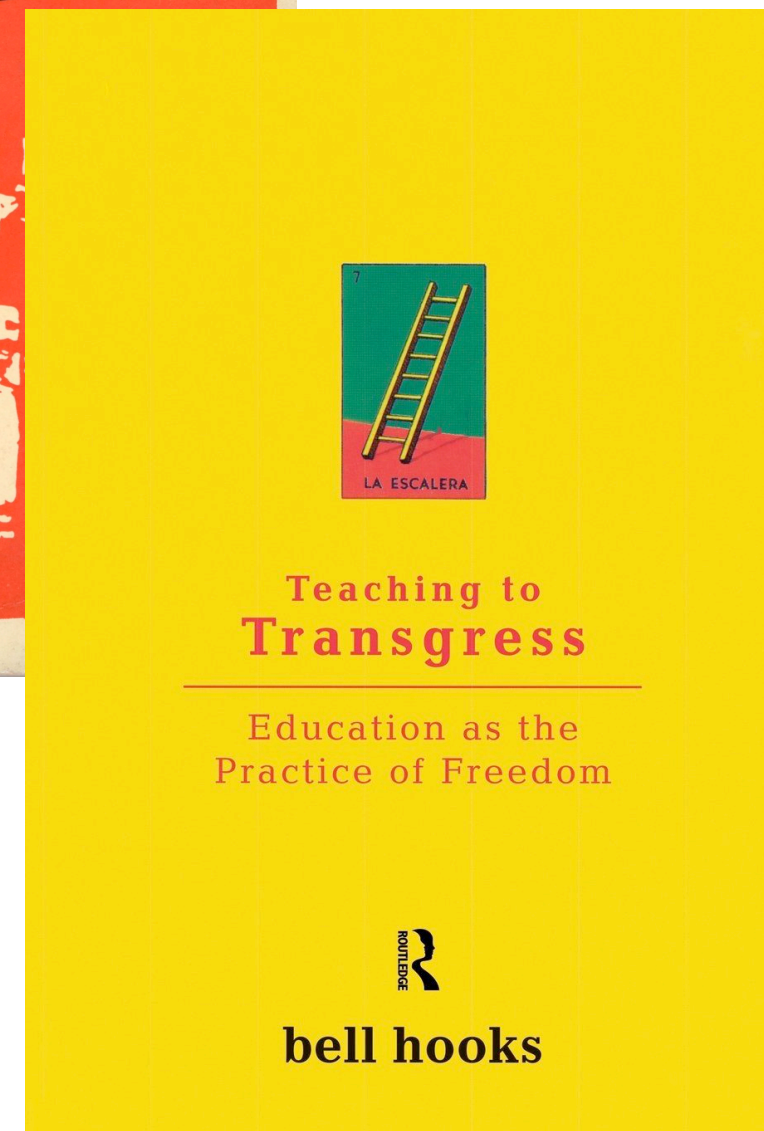- Applying the Framework
- Conclusion

Abolitionist Teaching

Abolitionist teachers work to end the structural role of education in reproducing systems of oppression, and reimagine schools as liberatory learning communities rooted in love, justice, joy, respect, well-being, and radical subjectivity.
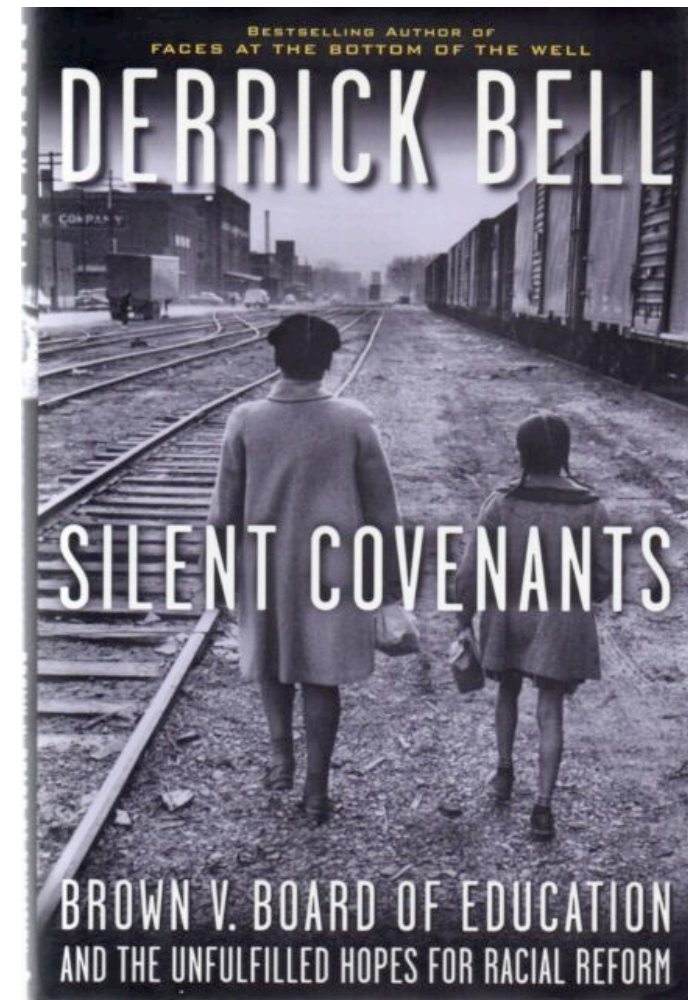
Abolitionist Teaching
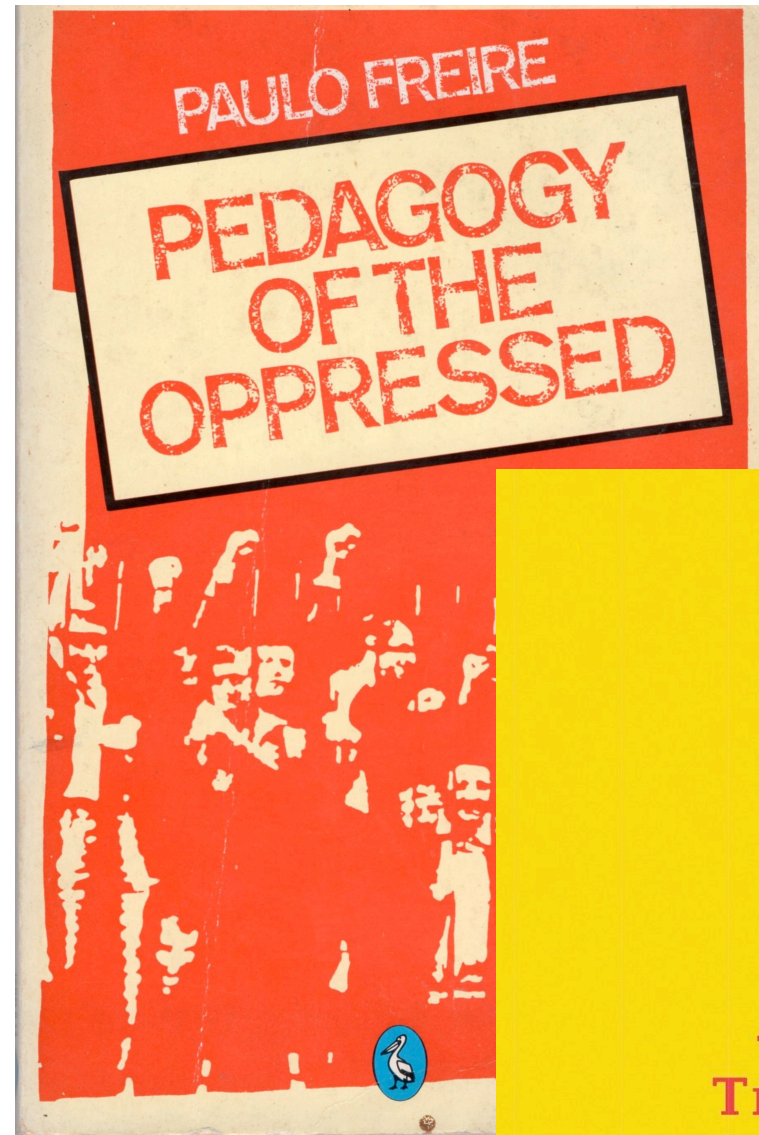
Paolo
Freire
(1967)

bell hooks
(1994)

Derrick Bell
(2004)
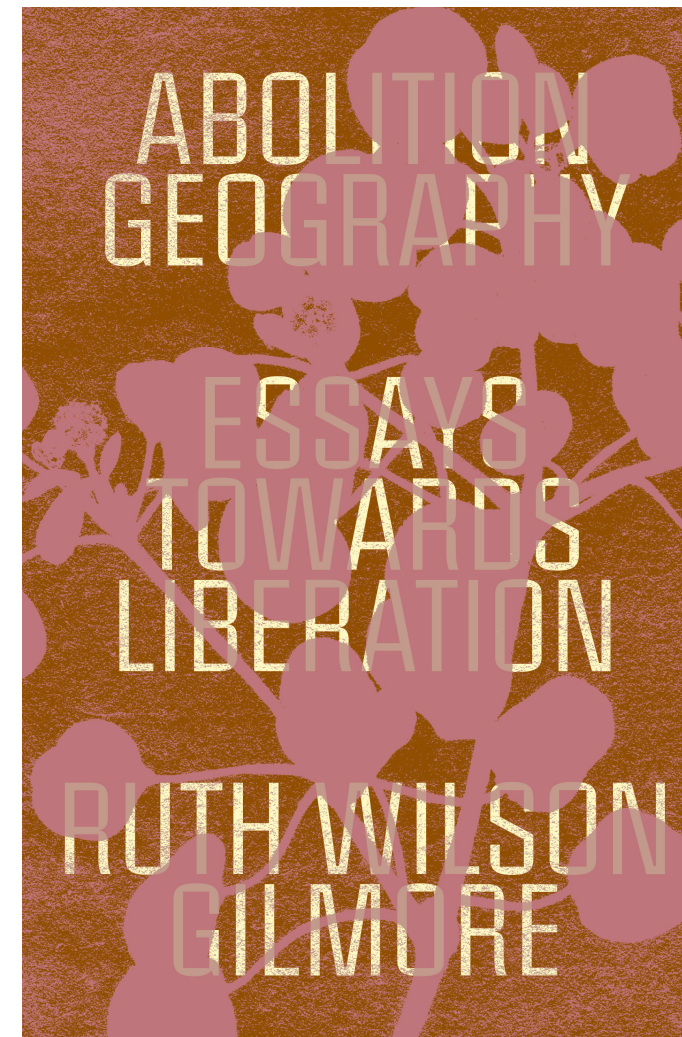
Ruth Wilson Gilmore
(2011)
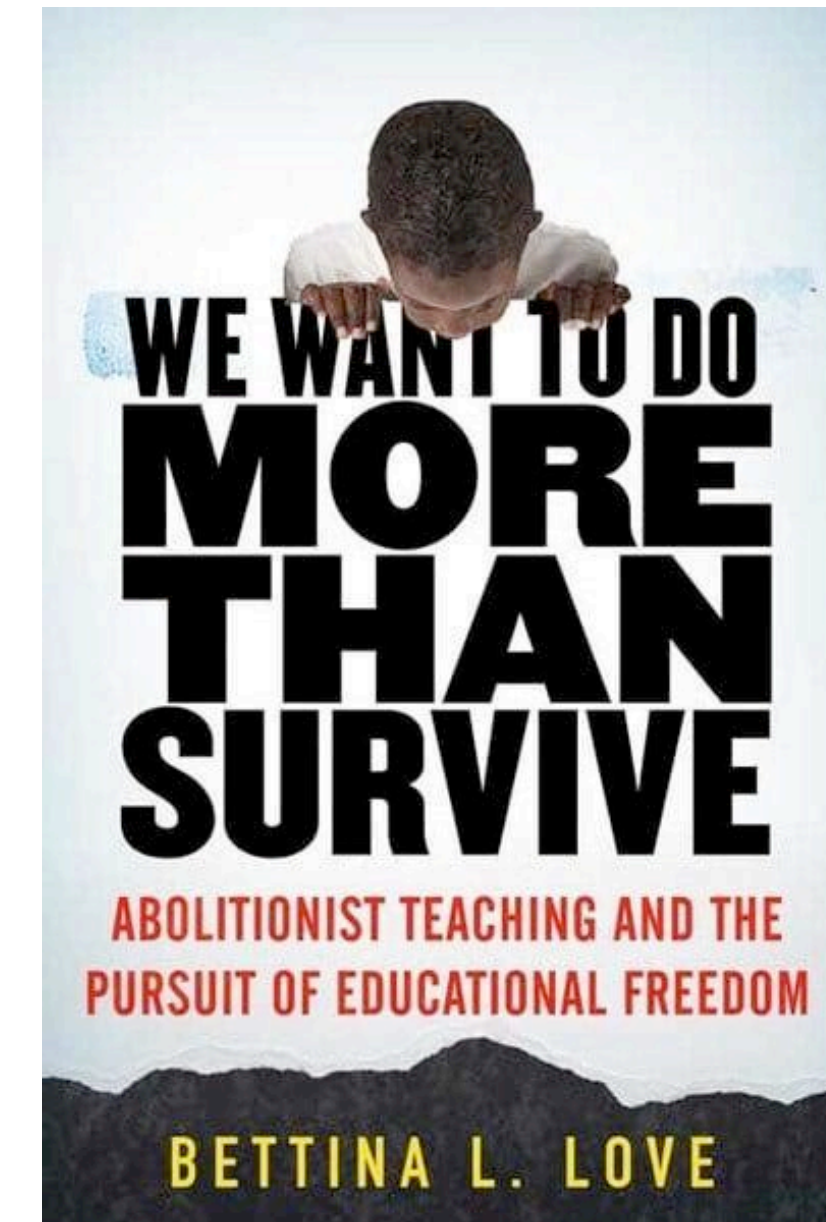
Bettina L. Love
(2019)

ABOLITIONIST
TEACHING
N E T W O R K
(est. 2020)

PROJECT NIA
(est. 2009)

Abolitionist Teaching in Computer Science

Ruha Benjamin
(2019)

VIRAL JUSTICE
HOW WE GROW THE WORLD WE WANT
RUHA BENJAMIN
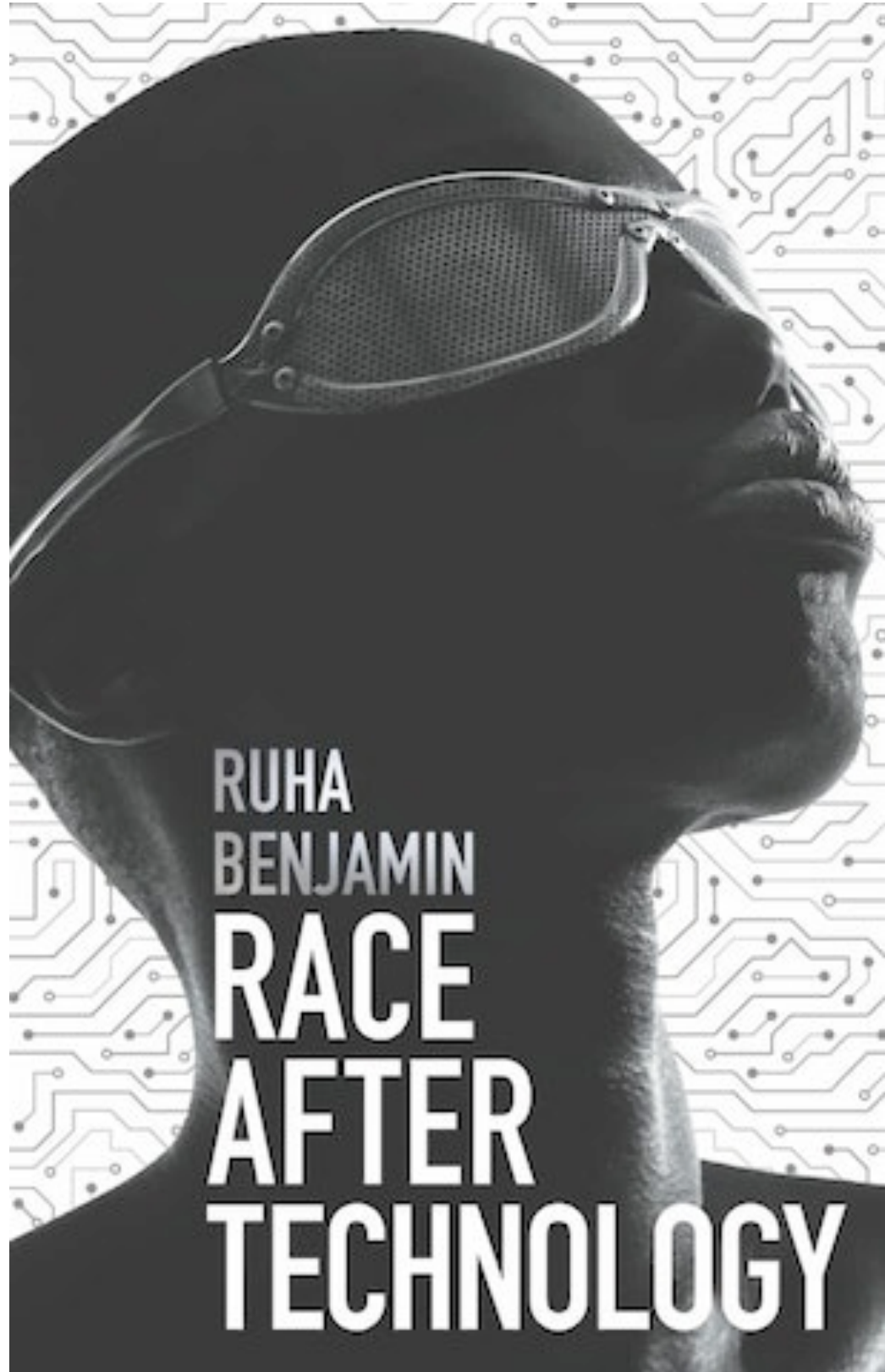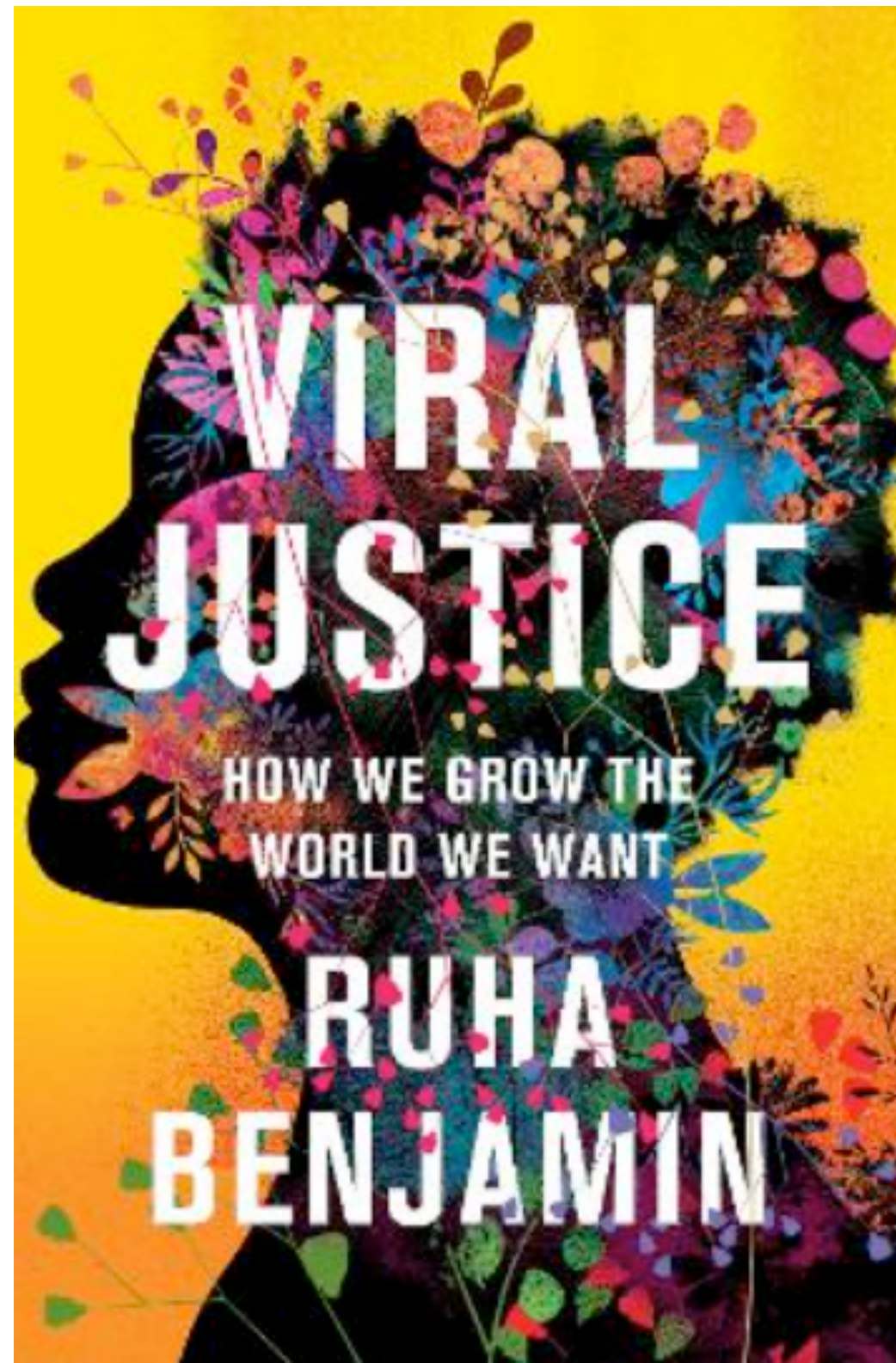
(2022)

We Tell These Stories to Survive: Towards Abolition in Computer Science Education

Stephanie T. Jones[1] · natalie araujo melo[1]

Jones and melo (2021)

Many works document the intersections of technology and systemic oppression (mass surveillance, e-carceration, algorithmic oppression, etc.)

Abolition Science Radio
(est. 2018)

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o   Framework Praxis

o   Applying the Framework

o   Conclusion

Framework Objectives

Not a system of rigid tenets or principles, but

Living Praxis: theories and practices that grow and change depending
on the imaginations, positions, needs, and challenges of practicioners

Not in isolation from or a substitution for, but as an

Ongoing Synthesis of the work of abolitionist teachers
in CS and beyond

Framework Objectives

A scaffolding or organizational tool to help CS teachers:

1) Evaluate their teaching pedagogy and practice from an abolitionist perspective

2) Create new, liberatory pedagogy that seeks to dismantle and replace systems of technological oppression

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Framework Praxis: Community Organizing

o CS classroom communities are inherently intertwined with, and have an impact on, local and global communities

o Developing sustainable partnerships with local and global community organizations already working toward justice (Love 2019)

o Community organizing different from "diversity + inclusion" initiatives that expect marginalized students to assimilate or "sell out" (Vakil 2020)

o Example: Young People's Race, Power, and Technology Project (Tree Lab 2019) to "explore, engage, critique, and reimagine the role of technology"

Community Organizing Reflection Questions

Who are the people and communities most impacted by the CS concepts and technologies that I teach?

How might I go about listening to the self-articulated perspectives, experiences, and needs of those people and communities?

How might I reimagine my lessons, assessments, and curricula to center to the above testimony?

How might my students and I work with local community organizations toward social, political, economic, and environmental justice?

Framework Praxis: History, Civics, and Resistance

o History is a "great force" by which people are "unconsciously controlled" (Baldwin 1965)

o Education is inherently political (hooks 1990, 1994): we either reproduce sociotechnical "politics of domination" or teach a "politics of refusal"

o Important to teach "not only examples of resistance, but strategies of resistance" (Love 2019)

o Example: ANC's Operation Vula cryptographic protocol, Algorithms for the People course (Kamara, Kwegyir-Aggrey, and Qin 2021)

History, Civics, and Resistance Reflection Questions

What is the social, historical, political, economic, and environmental context of the CS material that I teach?

How might this material help to create technologies that reproduce interlocking systems of technological oppression?

In what ways have people resisted the systems of technological oppression identified above?

How might I develop these examples and strategies of resistance with my students?

Framework Praxis: Intersectional Strength

o "The major systems of oppression are interlocking. The synthesis of these oppressions creates the conditions of our lives" (Combahee River Collective 1983): necessitates an intersectional lens (Crenshaw 1990)

o Codes (technological and otherwise) are convergence points for "multiple axes of domination" (Benjamin 2019), flattening

o Intersectional identities are a strength, a "fund of necessary polarities between which our creativity can spark" (Lorde 1979)

o Example: Learning LaTonya Myers' Story (Coded Bias 2021) at the Workshop School (Coven 2018), the intersectional nature of algorithmic oppression

Intersectional Strength Reflection Questions

How might the systems of technological oppression related to the CS concepts I teach negatively impact people with particular intersections of identity?

⭐ In which ways might those same systems "overserve" those with opposing intersections of identity? (Benjamin 2022)

How might my students and I leverage the strengths of our intersting identities toward understanding technological oppression—and freedom from it?

How might we apply our understanding of the interlocking nature of technological oppression to our practices of community organizing and resistance?

Framework Praxis: Confronting Whiteness

o Beyond color: a force "addicted to centering itself" (Love 2019)

o White supremacist ideology manifests in CS as techno-complexes:

   o techno-imperialism and techno-colonialism: tech-facilitated exploitation of land, culture, and material resources

   o techno-saviorism, techno-solutionism, and techno-optimism: the idea that tech can fix anything

   o techno-determinism and techno-nihilism: the idea that tech advances are pre-determined and we are powerless to stop them

   o techno-objectivism: the idea that tech is or can be truly objective

Confronting Whiteness Reflection Questions

Whom do I consider to be the knowledgeable "experts" in CS? Why?

How might my language, actions and interactions, priorities, and teaching style reflect and reproduce the techno-complexes?

How might I have dismissed or thwarted students' or colleagues' efforts to disrupt oppressive systems in the past, and how might I join those efforts in the future?

How might I leverage my intersections of privilege to support people and movements for social, political, economic, and environmental justice?

Framework Praxis: Love, Joy, and Well-Being

o "revolution begins with the self, in the self" (Bambara 1970)

o Difficult to have love, joy, and well-being in academia due to commodification and exploitation of people, teaching, learning, research, and care work (Soley 1995, Gilmore 2011)

o REST IS RESISTANCE! (Hersey 2022), as is caring for the souls of students, colleagues, and ourselves (hooks 1994)

o Example: Grieving the loss and celebrating the life of Nipsey Hussle by co-creating digital art (Ryoo, Tanksley, Estrada, and Margolis 2020)

Love, Joy, and Well-Being Reflection Questions

What are my priorities in life? Why are they priorities?

⭐ How might the "grind" of CS be impacting my health? (Benjamin 2022)

When might I set aside time to truly get to know my students,
their communities, and their dreams for the future?

How might I help my students understand and develop their goals
and priorities in a healthy way?

How might we honor and celebrate the scientific contributions of people are
not cisgendered White men from the Global North?

Framework Praxis: Freedom Dreaming and Revolutionary Spirit

o "Opposition is not enough" (hooks 1990)

o Filling space created by resistance with "radical imagination" (Love 2019) and "liberatory fantasy" (Dumas and ross 2016)

o Freedom dreaming to reclaim agency, reimagine the role of CS-produced knowledge and tech; Revolutionary Spirit to actualize those dreams

o Example: the Ubuntu Center, fictional former engineering school turned "thriving community centre" that is a "central resource for everyone in the community" (Jones and melo 2021)

Freedom Dreaming & Revolutionary Spirit Reflection Questions

How might techno-nihilism or a lack of time and space to dream be holding me back from working toward change?

How might my students and I synthesize the perspectives and oppressions discussed above to envision what freedom could look like?

If freedom involves destroying an aspect of CS that I teach, research, or develop, how will I work to accept that?

How might my students and I work toward realizing collective visions of freedom?

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Applying the Framework

"We must rapidly begin the shift from a 'thing'-oriented society to a 'person'-oriented society. When machines and computers, profit motives and property rights are considered more important than people, the giant triplets of racism, materialism, and militarism are incapable of being conquered."

– Martin Luther King, Jr. (1967) via bell hooks (1994)

Applying the Framework

o   Resist deep and ongoing commodification of "cosmetic diversity"

o   Resist a corporate White savior "do-gooding ethos" (Benjamin 2019)

o   Resist the sanitized "have-a-nice-day smile" (hooks 1994)

o   Resist "publish or perish" and other toxic academic doctrines

o   Embrace the discomfort, struggle, and messiness of liberation work

o   Embrace work that is undocumented and undervalued by academic institutions, corporations, and global power structures

Applying the Framework

o   **Abolition not Integration:** when the act of integration is undertaken without fundamentally challenging the root cause of apartheid, integration becomes assimilation (hooks 1990, Bell 2004, & many more)

o   **Occupying the Institution:** demands the energy of attention, intention, and action toward what in academe takes up time and space, how, and to what ends (Gilmore 2011, Vossoughi and Vakil 2020, & many more)

o   **Revealing the Lives of Ideas:** even something as simple as a for loop has a rich story and direct impact on technological oppression

o   **Starting Where You Are:** organizing people, ideas, and collective action

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Conclusion

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… and all of us!

⭐ Thank you! ⭐