



Article

## Traversing the Gaps: An Afrofuturist Approach to Social Change Through Dreaming in Science Fiction and STEM/Computer Science Education

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### Abstract

*It is our belief that critical imagination can occur through classroom daydreaming and the freedom to pursue creativity that can be realized through Afrofuturistic fiction. This article uses “critical imagination” and generative-expression through Black feminist discourse analysis to explore the possibilities of engaging daydreaming as freedom dreaming (Guthrie, 2019) in classrooms. These concepts demonstrate why we need approaches to designing classroom environments that recognize the fragile nature of dreaming for Black learners in a post-pandemic landscape through a liberatory design lens (Winchester, 2019). In this article, we offer a model for educators to use to liberate learners from pedagogies that criminalize practices like daydreaming and create pathways towards new realities for creativity, rest, and storytelling in STEM/CS classrooms.*

### Keywords

Freedom Dreaming, Young Adult Fiction, Anti-racist Pedagogy

### Introduction

Black feminist thought allows us to rhetorically construct linguistic realities that enrich the past, present, and Afrofuture. Black feminist scholarship that synthesizes with Afrofuturism calls all who aim to cultivate a thriving Black future to demand an intelligent and sympathetic comprehension towards those whose “freedom would necessitate the destruction of all the systems of oppression” (Combahee River Collective, 1977/1995, p. 7). As historian Robin D.G. Kelley explains in *Freedom Dreams: The Black Radical Imagination*, Black people dream of the new societies Black feminist thinkers teach us to create. It is through their “Black radical imagination” that we learn to cultivate stories of a thriving Black future (Kelley, 2002). Kelley’s project is an “idiosyncratic outline of a history of black radical imagination in the twentieth century” through activism and Black art movements (Kelley, 2002, p. 7). Similar to Kelley, we hope to outline the rhetoric used by Black writers that builds a bridge traversing the gap in classrooms between science fiction and science, technology, engineering, mathematics (STEM) and computer science (CS). This liberatory design will empower educators to unshackle students from learning models that criminalize practices like daydreaming and create pathways towards new realities for creativity, rest, and storytelling in the classroom. Black Feminist and Womanist thinkers, such as Patricia Hill Collins, Alice Walker, and Zora Neale Hurston, have given us frameworks for telling stories that sustain Black futures. In this article, we explore an example of this we call freedom dreaming.

For context, we write this article as cousins. The familial stories we share help inform our research and our approach to dreaming. Familial stories passed down through the oral tradition are extremely important in African American communities. In our family, the storytellers are mothers who are teachers, fathers who are preachers, and grandparents who hold the history of land and opportunity in their hearts to share with us all. As cousins, we acknowledge how narrative therapy has helped us process the stories of love and pain that have been shared with us over the years. We explore an example of this later as it relates to rest and understanding one’s roots. Our familial

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stories, specifically about what it means to be a Black person pursuing an education in America, have informed our research and pedagogical practices. The stories told about the importance of education and the material reality of what it means to get an education in America today are concepts we can only explore through written Black feminist liberation practices. These practices continue to make room for our own daydreaming. As you read this article, we ask that you begin with this question in mind: *How can we reimagine classroom practices that allow students and teachers to engage daydreaming through self-expression and critical imagination that value intersectional transferable skills?*

A dream realized versus a dream deferred often shows up as classroom conflict. In this article, we argue that the possibilities of having students and teachers embrace dreaming in the classroom through self-expression and critical imagination helps minoritized students build lasting connections to source materials that translate into transferable skills. By engaging the creativity within a student, when they are daydreaming or taking a break from a lesson to be creative, we can create substantive practices that allow them to write themselves into the future. When exploring the connections between STEM/CS and science fiction in the classroom, for example, educators can teach students to use the tools that speculative fiction writers use to build transferable skills. The tools speculative fiction writers use that we explore in our framework are “critical imagination” and self-expression -- tools of freedom dreaming. We rely on the following definitions for these terms: critical imagination is “a powerful articulation of how one sees, cares, and has the capacity to act amid the challenging circumstances that might surround a specific situation” (Royster & Kirsch, 2012, p. 84); self-expression is “learning to think creatively, reason systematically, and work collaboratively” (Resnick & Siegel, 2015).

“Critical imagination” and self-expression in the classroom help us develop a pedagogy that recognizes and celebrates differences in order to fully realize a thriving Black future. As creative meaning-making methods, these tools of freedom dreaming make room for storytelling, gamification, and other explorations of technical hybridity in the Afrofuturist STEM/CS classroom. Furthermore, they create intersectional contexts for classroom engagement between STEM/CS and speculative fiction. Using speculative fiction and STEM/CS in the classroom as materials for our exploration, we define freedom dreaming as “envisioning Afro-Diasporic possibility.” In this article, we provide strategies for engagement with daydreaming and rest as transferable skills in the classroom, through “critical imagination” and self-expression, to reimagine classroom practices in the Afrofuture. Freedom dreams are the foundation on which we will build a thriving Black future.

Here, we build our argument on Black feminist practices and our epistemological stance to teaching, grounded in our identities and familial stories. As first cousins, we collectively focus our scholarship on Black feminist rhetoric and the experiences of Black girls in STEM/CS, respectively. We understand the intersectional nature of our partnership through the scholarship of Patricia Hill Collins. Our family history, especially the stories of our mothers, other mothers, and grandmother, has instilled in us that through education comes freedom. We know this to be true because “as mothers, other mothers, teachers, and churchwomen,” African American women have always constructed our knowledges that sustain Black history (Collins, 2002). It is through our collective lived experiences that Black women’s self-definition practices have enabled us to “refashion African-influenced conceptions of self and community” in order to “resist the negative controlling images of Black womanhood advanced by Whites as well as the discriminatory social practices that these controlling images supported” (Collins, 2002). To ensure our genius grows and thrives in the future, we must understand that the cultivation of land through storytelling is a method of time travel for Black knowledges which were outlawed during the time of enslavement.

“Black radical imagination” is a way to synthesize those stories we know about enslavement with freedom dreaming as an Afrofuturist recovery method. Our stories cultivate our roots to rhetorically rebuild those lived experiences and ensure the future of our people and histories by creating speculative fiction. As artifacts that embody our past, present, and future, Black speculative fiction conjures new realities that allow us to imagine a thriving Black future. Collins explains:

Black women intellectuals who study African-American families and Black Motherhood...portray African American mothers as complex individuals who often show tremendous strength under adverse conditions, or who become beaten down by the incessant demands of providing for their families. In *A Raisin in the Sun*, the first play presented on Broadway written by a Black woman, Lorraine Hansberry (1959) examines the struggles of widow Lena Younger to actualize her dream of purchasing a home for her family (Collins, 2002, p. 75).

Hansberry's play is a cautionary tale about what happens to the human spirit if it must sit in the sorrow of deferred dreams, but it is also the story of the power it takes Black women to envision a bright future for their families in the face of oppression. Our own grandmother tells the story of moving her family from the rural South to southern California to pursue a safer environment and education for her family. Alone on a train, she ushered her two daughters and five of her six sons on the journey by train across the country to meet her husband in pursuit of a different story. From her story, we learned that you need safe spaces to dream of the future. Sometimes those safe spaces are the stories we tell.

We believe we can terraform our classrooms into safe spaces where dreams can be cultivated safely; we just need to pave the way forward for our students. By building a rhetorical framework of "freedom dreaming" in the classroom, we can build new pathways towards knowledge production for our students. "Freedom dreaming" allows us to explore "the rhetorical activities of women and others from historically unauthorized groups" through the tool of critical imagination (Royster & Kirsch, 2012). As an act of Afrofuturist recovery, we can expand their classrooms' schemas to include dream spaces where we can teach our students to provoke their curiosities and push themselves to expand their sense of wonder. Jacqueline Jones-Royster and Gesa Kirsch explain that to ensure our people can dream themselves through the world safely, we need models of what safe traversing looks like. Their concept of critical imagination provides a persuasive expression of how an individual views and has the capacity to respond to challenging situations (Royster & Kirsch, 2012). Using a geographical metaphor, Royster and Kirsch explicate that storytelling can serve as "modeling in a compelling way... [that constructs rhetorics] of hope, caring, expectation, and action" (Royster & Kirsch, 2012, p. 47). We argue that freedom dreaming, when it is engaged with "Black radical imagination" and "critical imagination," can provide us with a framework to model dreaming in the classroom. This is especially important to consider now that the COVID-19 pandemic has changed the landscape of our classrooms.

With Royster and Kirsch's concept of "critical imagination" we can cultivate safe spaces for dreaming that are designed to help students build an understanding of challenging situations and the capacity to act (Royster & Kirsch, 2012). Overall, our goal is to build new pathways for storytelling for learners, so they can build transferable skills that help them navigate between the sciences and technical advances in our post-COVID landscape. In this way, "critical imagination" supports "freedom dreaming" in the world of speculative fiction to foster hope, ethics of care, healthy expectations, and activism in the future.

The pandemic has taught us that equity in education, especially the material conditions having technology in the classroom creates, is central to how students envision themselves in the future. We were inspired by Woodrow W. Winchester's article, "Engaging the Black Ethos: Afrofuturism as a Design Lens for Inclusive Technological Innovation," to really think about how teachers might build intersectional contexts between STEM/CS and speculative fictions. In this article, Winchester (2019) developed "vision concepts" as a method of engaging Afrofuturism in design to create artifacts that "enable more inclusive design conversations about both user and context of use" (p. 57). Design and "vision concepts" helped us to think about how putting STEM or CS and speculative fiction in the same classroom can build a social justice-oriented approach to course design (Winchester, 2019). By putting Winchester's "vision concepts" in conversation with Mitchel Resnick and David Siegel's concept of "self-expression," we can help students who may have technology insecurities develop new literacies and share knowledge that is personal and expressive of their lived experiences.

Resnick and Siegel define "self-expression" within computer science education as a creative method to using coding literacy to build "interactive stories and games with animated characters" while "learning to think creatively, reason systematically, and work collaboratively" (Resnick & Siegel, 2015). Both concepts support our assertion that by modeling the importance of creating intersectional contexts for engagement with daydreaming, students can cultivate transferable skills that are generative rather than reactive in the classroom. A synthesis of these two concepts would best be called *generative-expression*. We define generative-expression as the ability to engage with both the design and the language of futurity in a way that creates or supports Afrofuturist technology and artifacts through storytelling. This is a first step towards redefining what daydreaming means in the classroom. We see it as a generative action that dispels capitalistic expectations of how education should look. The best place to do this kind of exploration is the Afrofuture.

In "Redefining the Colonial: An Afrofuturist Analysis of Wakanda and Speculative Fiction," Ricardo Guthrie explains that the world of Wakanda from the Marvel Universe gives viewers a framework for Afro-Diasporic modernity that exists "outside of colonial, neocolonial and postcolonial imaginations" (Guthrie, 2019). Guthrie

argues that the world of Wakanda provides a foundation “envisioning Afro-Diasporic possibility” through explorations of speculative Black art, culture, language, music and cinematography (Guthrie, 2019). The Netflix documentary *Abstract: The Art of Design* (Woloshin, 2019) explores the life and career of the costume designer for *Black Panther* Ruth Carter, illustrating Guthrie’s point. Carter built the world of Wakanda from artifacts depicting African history. As a visual storyteller, she used color, textiles, and design to build the Wakanda we experienced on screen. We believe “envisioning Afro-Diasporic possibility” is central to freedom dreaming because it helps us define the meaning of freedom in dream spaces. Guthrie’s assertion that “knowledge practices and aesthetics that sustain Black people...in a fictive Wakanda...rework the “trauma drama” arising out of colonialism, enslavement and anti-Black racism while evincing a hopeful portrayal of Blackness and technology” (p. 19) helps us unpack how “Black radical imagination” is foundational to remixing daydreaming. Overall, to create strategies for the future in our classrooms we need to work alongside Guthrie’s ideas about the importance of Black art, culture, language, music and cinematography if we want to ensure a thriving Black future.

Working with the scholarship we have reviewed thus far, we focus the remainder of this article on young adult speculative fiction to demonstrate how “freedom dreaming” can answer the following question: *How does the use of Afrofuturist literature, such as the Tristan Strong Series by Kwame Mbalia, recover an African American shared mythology and build a linguistically diverse Black future?* Thinking about the ways in which teachers might engage students whose minds have wandered is tricky. To start, something outside the lesson has already drawn them away from the learning space into a dreaming space. First and foremost, we do not want to impose capitalistic notions of production and success that are always harmful to marginalized students of color by taking away their means of escape. Instead, we would like to offer a model that engages the flexibility of a daydreaming space within the learning space, so creativity can be a substantive bridge between the two that cultivates skills grounded in both contexts. We would like you to imagine daydreaming as transporting Black students to a different reality—much in the same way T’Challa was transported to the astral plane to speak with his father in the film *Black Panther* (Coogler, 2018). Or, cast students in the same role as Tristan in *Tristan Strong Punches a Hole in the Sky* as an Anansem, the carriers and tellers of sacred African stories who have the responsibility to protect the history of our stories and tell new ones. As scholar Adwoa Ntozake Onuora explains in her book *Anansem: Telling Stories and Storytelling African Maternal Pedagogies*:

“Within the North American context where African people continue to face multiple and intersecting forms of oppression, our stories become particularly important because...they function as a means of psychic self-preservation, offering an outlet for healing from our wounds” (Onuora, 2015, p. 11).

By putting our students in the role of story keepers, it allows them to think about daydreaming as an African birthright and a responsibility they have to their communities to imagine a thriving Black future for us. Onuora goes on to point out that there are three methods of stories: 1) as metanarratives of cultural groups, 2) as personal or self-stories, and 3) as cultural stories. Metanarratives represent the morals, ethics, social knowledges, and cultural identities of the African diaspora. Personal or self-stories represent the viewpoint and knowledges of a single individual that represent their lived experiences as members of African diaspora through nonfiction, fiction, or speculative storytelling. Cultural stories are African and African American folklore. The following section of this article outlines how these methods of storytelling answer our questions using “critical imagination” and generative-expression as rhetorical tools.

### **Daydreaming in the Classroom with “Critical Imagination” and Generative-Expression**

*How does the use of Afrofuturist literature, such as the Tristan Strong Series by Kwame Mbalia, both recover an African American shared mythology and build a linguistically diverse Black future?*

In this post-pandemic landscape, the time and space to rest and observe must be added to our schema of what constitutes a learning environment. Using an interdisciplinary approach to classroom design, incorporating a practice of rest that sustains our wellness and promotes healing is a fundamental part of generative-expression. European epistemology that makes rest a luxury rather than a necessity keeps us stuck in a capitalist mindset. Stephanie Evan’s work tells us that “we have a responsibility to identify, appreciate, incorporate, and disseminate the myriad self-care practices rooted in our history and the practices of our ancestors” (Evans, 2021, p. 12). Self-

care involves pausing to care for self, especially when others fail to do so (Maparyan, 2012). Even how we engage in healing practices is a form of self-care.

In Kwame Mbalia's novel *Tristan Strong Punches a Hole in the Sky*, the protagonist's journey toward healing demonstrates how learning about your ancestral roots can promote healing. After the death of his best friend, Tristan begins to learn the power of the African American oral tradition. His adventures teach him to respect his powers as an Anansem and to embrace the healing that learning to tell stories brings him. According to the work of Tamika Carey (2016), we know that rhetorics of healing are "a set of persuasive discourses and performances writers wield to convince their readers that redressing or preventing a crisis requires them to follow the steps to ideological, communicative, or behavioral transformation the writer considers essential to wellness" (p. 5). Recognizing Anansem storytelling as a set of methods that speak to African diasporic histories allows students, teachers, and other readers of Mbalia's novel to find healing within the world the novel has created.

Following the model outlined by Safiya Umoja Noble, generative-expression helps us to incorporate "models of inquiry that employ intersectional Black studies frameworks allow[ing] for a contextualizing...of our assumptions about the longevity and efficiency of our technological investments" (Noble, 2019, p. 33). One such method of inquiry is Black feminist rhetorical analysis using "critical imagination." Critical imagination allows us to see that if we model rest as the time to cultivate creative power, we can build an Afrofuture that engages daydreaming ethically. Too often students are presented with effigies of historical trauma and forced to dream of themselves as free from that trauma. For example, in June 2021, it was reported that at a middle school in Spokane, Washington, two Black female students were forced to "simulate the experience of enslaved people" by "clean[ing] freshly picked cotton as part of a classroom assignment." The ACLU of Washington put out a press release where the girls explained the students "didn't learn about the slave trade or anything about the history of slavery...[the] lesson made it seem like enslaved people existed just to pick and clean cotton" (ACLU, 2021). Labor and how we labor is not the only measure of an individual's lived experience. These are not freedom dreams. In fact, listening to Carey's work we know these are the types of trauma Black students are redressing. Mbalia's novel is redressing trauma that students experience in the classroom as well. By building an African American shared mythology within *Tristan Strong Punches a Hole in the Sky* that embraces a collective healing, Mbalia offers us a new mythology that embraces a thriving Black future. He calls this world Alke, the land of African American folk heroes and African gods. Here he lays the groundwork for that mythology:

Over in Africa, before the horrors of slavery, people used to fly all the time. They'd whisper the powerful words, the phrases dripping in old magic, and shoot off into the sky. Brothers raced sisters. Mothers and fathers carried babies over shining lakes and snow-covered mountains. Then came the chains and ships, and pain and whips, and the people's wings fell or were torn off. But the words of power were never forgotten. Sometimes, in the middle of the night, after a brutal day of working in blistering-hot fields, the elders would whisper them into the ears of those who needed it most, and *whoosh*, off people would soar toward freedom. (p. 111)

Thinking of these lines as a road map of "critical imagination" allows both students and teachers to find new roles for daydreaming within this novel. Stories told in the African American tradition are meant to transport us to a realm of healing in Alke. Mbalia underscores this point with Tristan's backstory. At the opening of the novel, Tristan is recovering from the tragic loss of his best friend, Eddie. Together, they were working on a project about African American myths and folklore. Eddie's favorite character was a man named High John, known to African American myth as an African prince enslaved in the US. It is from High John that Tristan learns to process his grief:

Can't live your life with grief whispering in your ear, pulling you this way and that. But you can't shove it in a drawer deep inside yourself, neither. Naw, you got to sit grief down and talk to it. Listen to it. Come to terms with it. Pain is the body's way of saying it's healing, so you gotta let it heal...you should grieve your friend. But remember to live your life as it is now, and not how it would have been. Never forget, but accept. Understand? (p. 381)

This lesson stays with Tristan throughout the other stories in the *Tristan Strong Series*. Think of this as a roadmap to "critically imagine" how healing can liberate African American people, from our present oppressive systems that

were instituted during slavery, giving them an outlet while they are learning about the truth in American history. Through his grief Tristan gains his own powers in the realm of African stories honoring the legacy his friend left behind. In telling the story to the god John Henry of Muhammad Ali an African American professional boxer and activist, Tristan uses his Anansesem storytelling powers to create Muhammad Ali's story which makes him a new god in Alke. This makes Tristan, who trained to be a boxer himself, an Anansesem who weaves stories with his fists and protects the legacy of African American history within boxing. We see this as an important intersection in thinking about how "critical imagination" can bring "rhetorical healing" to lessons that explore cultural mythologies.

Thinking of Alke as the landscape of daydreaming also allows us to explore how we can build a linguistically diverse Black future through generative-expression. Afrofuturist expressions of technology in the story give us new realities to explore. To regain the rest of Alke's power from the story's villain, an evil spirit, or haint, named King Cotton who is a story stealer, Tristan and his companions must steal a story box from the Golden Crescent, the home of the gods. The Golden Crescent is a bastion of technology. There, Tristian and his companions are faced with a complicated security system that they have to sneak past to reach their goal inside the city. Tristan describes the security system that scares him as "silver and black lightning bolts ... being hurled at us by giant black stone towers with jewels at the tops" (Mbalia, 2019, p. 263). In his fear Tristan makes up a new word, "Nightning," to describe the blast of night-dark lightning coming from the stone towers. In that moment he also breaks the fourth wall, reminding readers that his creativity is already trademarked. This moment of linguistic invention is often degraded in classroom spaces. From the work of April Baker-Bell we know that:

In classrooms, Black Language is devalued and viewed as a symbol of linguistic and intellectual inferiority. So essentially what this says is: It is acceptable for Black Language to be used and capitalized on by non-native Black Language-speakers for marketing and for play, but it is unacceptable for Black kids to use it as a linguistic resource in school. This is unfortunate but unsurprising because Black Language is one of those features of Black culture that white America loves to hate, yet loves to take (Baker-Bell, 2020, p. 14).

The liberatory space Alke supports Tristan's generative expression to fight against linguistic racism in classrooms. His remixing as a response to danger gives students new pathways towards thinking about how they might write themselves into unfamiliar or scary situations. Allowing Black students to engage in remixing in the same way in classrooms is a supportive first step towards building lessons that support generative-expression.

Word-play is a central part in creating a freedom dream. Thinking about the bridges between computer science and science fiction, word-play, in the way Mbalia engages through Tristian's eyes, is the ideal space for students to begin cultivating a schema for freedom dreaming. Much like the film *Black Panther*, the tools, and artifacts of Alke are part and parcel of African American history. Using generative-expression, students can make meaning using word-play that allows them to dream within their own histories and lived experiences about aspects of STEM/CS education, especially when it comes to access to modern technology needed to be successful in the field within the space of science fiction. By creating pathways to new technology through word-play students are using freedom dreaming to ensure their place in the future. These types of linguistics freedom are vital if we are to move toward an anti-racist future.

### **Freedoms in Pursuit of Creativity**

*What freedoms are important to the pursuit of creativity that can be realized through Afrofuturist fiction?*

Black Feminist thought acknowledges that Black learners' experiences are unique based on their racialized identities. The role that Afrofuturist fiction plays for Black learners is crucial in their pursuit of creativity, especially as they seek to articulate futures that counter harmful and controlling images (Collins, 2002) in schools and society. In this article, we theorized and demonstrated how numerous possibilities and freedoms can be realized through Afrofuturistic fiction and how it centers "Black Radical Imagination." Directly related to the pursuit of creativity, we provided examples of dreaming. Dreaming is available to humans at no monetary cost, and yet its importance as an act of freedom in pursuit of creativity is rarely recognized or appreciated. A dream realized versus a dream deferred has been viewed as conflict in the classroom; therefore, the choice to daydream in classrooms comes with

a cost even though dreaming is free. In this article, we offered a model that considers the possibilities of daydreaming spaces within learning environments as an essential structure for the cultivation of creativity. Building on this notion, we explored what Black Feminist scholars call freedom dreaming, as well as its essential elements— “critical imagination” and generative-expression. The freedoms of “critical imagination” and generative-expression can be realized through Afrofuturist fiction and open a new pathway towards knowledge production for Black learners.

Despite the history of pervasive oppressive pedagogies in schools and the ongoing COVID-19 pandemic, the future of Black education should support the development of “critical imagination” and generative-expression. Practicing “critical imagination” and generative-expression in classrooms can influence a pedagogy that celebrates difference and truly realizes a thriving Black future. Liberation from oppressive pedagogies, such as teacher-centered instruction and lessons designed to teach compliance over content, is an imperative step in pursuit of creativity. More humanizing pedagogies call for an ethic of care, patience, and willingness to engage learners in experiences that open up spaces for imaginative possibilities. For example, capturing the attention of a student who is daydreaming in the classroom has been viewed by educators as a frustrating and insurmountable task. An educator engaged in an oppressive pedagogical approach would assign a consequence for daydreaming. Their assumption may be that a student who is daydreaming is not paying attention in class, when this could be the student’s way of making meaning of a lesson or concept. In order to cultivate a thriving Black future, educators must take the time to engage with Black learners based on an understanding of their creative meaning-making methods. This would require an understanding of Black learners’ intersectional and racialized experiences, as well as their schema of knowing. Arriving at such an understanding is commonly termed as a highly qualified teacher’s process of “getting to know” their students. Alternatively, lack of access to high quality teaching and learning that embraces pathways to intersectional contexts for classroom engagement renders Black learners with fewer opportunities to explore the bounds of their own creativity.

True freedom requires the destruction of oppressive systems (Combahee River Collective, 1977/1995), especially since creating spaces for “critical imagination” and generative-expression allows learners to cultivate transferable skills that support their ability to engage with both the design and the language of futurity as both teacher and student learn what it means to demystify dreaming in the classroom. In this article, we specifically illuminate how dreaming as an accepted practice in the classroom allows Black learners to use their “critical imagination” and self-expression to create what their dreams for the future have become and are becoming. Furthermore, learning environments where these freedoms exist along with Afrofuturist fiction are ripe for traversing between spaces of freedom (the ancestral plane) and the classroom. For example, creativity through “critical imagination” and generative-expression are visible throughout *Tristan Strong Punches a Hole in the Sky*, as Tristan traverses between planes and journeys towards healing. Tristan took risks and creatively solved complex issues on his journey in the way that we contend learners should experience as a model (via storytelling) and have the freedom to do themselves in STEM/CS classrooms -- especially when they are expected to take risks and innovate to solve “real world” problems.

As Black women educators who consider ourselves to be dreamers, we are fortunate to have access to familial stories passed down through the oral tradition from our grandmother, mothers, and other mothers. Afrofuturist fiction (specifically *Black Panther*) initially brought us together as co-authors. Familial stories and our own stories about experiences engaging with *Black Panther* as source material brought us closer together as first cousins and we began to appreciate that despite the distance in proximity and age between us, we were closer and shared more in common than we realized. One of us connected with Shuri, T’Challa’s technology-savvy sister, and the other with Ruth Carter, the film’s costume designer. We engaged in freedom dreaming—using our own “critical imagination” and generative-expression—to reflect on what Shuri and Ruth represented to us as we traversed the gaps between spaces of freedom and our respective disciplines. Fortunately, we are free to embrace and cultivate stories of a thriving Black future; we hope this article creates space for others to do the same. It is our belief that the possibilities of having learners and teachers embrace dreaming in the way we have demonstrated will create pathways towards new realities for creativity. We encourage educators and learners alike to engage in these practices of freedom in pursuit of their own creativity.

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