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Racial Equity for Edtech Schools

EXECUTIVE SUMMARY

Schools must champion the needs of Black and Brown students by holding education technology ("edtech") companies accountable to ensure they are prioritizing racial equity during product design and development. Black and Brown students make up over half of students in American K–12 public schools today, yet these students face rampant racial discrimination on a daily basis. Their challenges are reflected in higher suspension and dropout rates, less ambitious academic tracks, and lower family engagement. Without active and rigorous oversight, edtech companies may amplify existing discrimination and introduce new biases into schools that use their products.

Prior to purchase, schools should require that edtech companies adopt a set of equitable practices and disclose the risks of their algorithms to students and families. We recommend utilizing the School Procurement Guide that provides a set of questions and an evaluation rubric that schools can use to assess a edtech product's potential impact on racial equity.

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Black and Brown students face discrimination on a daily basis. They are suspended more often, placed on lower academic tracks, and taught content to which they often cannot relate. These experiences categorize Black and Brown students in ways that exclude them from the education system, leading them down a well-researched school-to-prison pipeline. This discrimination is reflected in a range of "objective" student outcome data that illustrate a race gap in attendance and discipline records, grades, and test scores. Edtech companies use such data to train algorithms that promise to personalize learning, identify at-risk students, and save teachers time. Without examining the biases that influence this data, companies code existing bias, along with their own assumptions, into the products schools use. Machine learning algorithms can further exacerbate these issues, as algorithms learn over time from biased data fed into them. Because the logic behind these products is hidden, teachers and students have no way to know whether the recommendations, alerts, or content they experience are justified or not.

Technologies in other sectors have run into major racial discrimination challenges, with reports of racial bias in facial recognition for surveillance, in risk assessment for the criminal justice system, and in smart recruitment systems for corporate hiring. Similarly, technologies designed to "accurately" predict dropouts, behavioral issues, and the likelihood of student mastery will perpetuate the same outcomes from the past, further encoding the racist history of our social and academic systems.[1] Even well-meaning companies can unknowingly introduce racial bias into their products.[2] Many companies test their products in partnership with schools that have small Black and Brown (and often low-income) populations. The resulting products do not account for differences in income, lived experience, accent, or language barriers that teachers see in their classrooms. As schools trust technology to take on a greater share of human decision-making, they expose Black and Brown students to the risk that algorithms will unknowingly limit their opportunities, based on the integration of data about Black and Brown students whom the system has already failed.

Although schools must abide by equal opportunity and anti-discrimination laws, there are no existing laws or regulations to hold

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edtech companies accountable for bias in their products. Companies are not required to disclose to schools or families whether or not they use artificial intelligence or machine learning, or how the data they collect is used within their algorithms. Over the last five years, legislation has evolved to protect student data privacy and accessibility needs, advocacy organizations have mobilized to decrease screen time, and agencies have allocated funds to decrease the digital divide. But digital equity is not just about increasing access to devices and the internet. Schools must champion the needs of their Black and Brown students and require edtech companies to commit to racial equity, alongside their commitments to data privacy and accessibility.

RECOMMENDATIONS

Education is far more than inputs and outcomes. It is impossible for edtech companies to capture the entire context of a student's experience in the form of data, especially when each edtech product focuses on a sliver of the educational experience. A math app will likely not develop a complete picture of a student's language proficiency, and so may fail to take into account their inability to solve word problems rather than the math problem at hand. Such an app is even less likely to encode a student's mental and physical health patterns, familial responsibilities, and interaction with law enforcement—factors that research has shown to have a significant impact on a child's ability to learn. By using the procurement process to ask questions of potential vendors, schools can use the School Procurement Guide to demand that edtech companies do work to understand the context in which students of color live and learn, investigate their own assumptions and blindspots, continuously test to assess the variable impacts of their products on Black and Brown students.

We recommend that schools carry out the following steps during the edtech procurement process:

- **Schools should consider racial equity as a key criterion when evaluating edtech vendors, prior to purchase.** Schools should consider a product's impact on racial equity in the same way that technology teams evaluate a product's compliance with student data privacy and accessibility requirements. Schools are held responsible for racial or socioeconomic discrimination, including the implementation of technologies that might amplify existing racial bias or introduce new biases into their classrooms. Furthermore, Black and Brown students make up over half of all students in K12 public schools. Schools should prioritize their needs when approving edtech products for purchase.

- **Schools should ask edtech companies about their equity-centered practices to ensure they have safeguards in place to identify and mitigate racial bias during development and testing.** Without active and rigorous investigation, edtech companies will encode existing racial bias and introduce new biases into their algorithms. Companies that commit to investigating blindspots in their data and potential racial bias in student outcomes will openly share the details of their practices with interested schools. Schools should ask for more information and ensure they feel comfortable with the level of investment a company dedicates to mitigating racial bias in their algorithms. The Edtech Equity Project provides a rubric that schools can use to compare the answers edtech companies provide.

- **Schools should ensure that school staff, students, and families feel comfortable with the type of data companies collect and the way the data is used to influence students' educational experiences.** Blindspots exist when the people most affected are not involved in the decision making process. It is difficult for Black and Brown students and their families to access a full list of the data companies collect and to understand how such data is used. It is even more difficult for these communities to voice their concerns. Schools should share information about their data collection and use with students and their families and incorporate their feedback or concerns into the

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procurement process. Black and Brown families can help schools identify potential risks to racial equity that school staff and edtech companies may not have yet identified.

CONCLUSION

Lack of racial equity is a major challenge for public schools today. Edtech companies that train artificial intelligence and machine learning algorithms on existing school data can amplify and exacerbate racial bias through the products they build. Schools can hold edtech companies accountable for their products' impacts on racial equity by asking the right questions during their procurement process. Similar to the evaluations schools must undertake to ensure a product's compliance with student data privacy and accessibility requirements, schools can 1) require edtech companies to adopt a set of equitable design and development practices to mitigate potential racial bias and 2) require companies to disclose the logic and risks behind their algorithms to schools and families.

ABOUT THE HUB

The Aspen Tech Policy Hub is a Bay Area policy incubator, training a new generation of tech policy entrepreneurs. We take tech experts, teach them the policy process, and support them in creating outside-the-box solutions to society's problems.

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Endnotes

1   Ruha Benjamin, *Race after Technology: Abolitionist Tools for the New Jim Code* (Cambridge: Polity, 2019).

2   Cathy O'Neil, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy* (London: Penguin Books, 2018).

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