



**ASPEN TECH  
POLICY HUB**

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# Policy 101: Education Technology



## What Is EdTech and why is it important?

Education technology, or [EdTech](#), is a term with no widely agreed-upon definition. For our purposes, it refers to technology tools used in educational contexts for learning and educational management. EdTech aims to facilitate learning at scale and to help children learn in new and more individualized ways.

EdTech tools typically have one of three uses: [delivering content](#), [facilitating social learning](#), and [aiding lesson planning](#). Content delivery tools engage children in learning by delivering subject matter and making learning more participatory and creation based. For instance, interactive math games and reading comprehension exercises enable students to create presentations, journals, and artwork. Social learning tools facilitate group work and include polls, assessments, discussion groups, videoconferencing, and apps to communicate with students and their families. Lesson planning tools help teachers organize and share lessons internally. These include discussion boards, content dissemination tools, curriculum student progress trackers, and organizational tools for behavior management.

Schools have dramatically increased their use of EdTech in recent years, as a result of both a shift toward distance learning during the COVID-19 pandemic and the greater prevalence of technology in children's lives. The average number of tech products that U.S. school districts access per month [tripled between 2017 and 2022, from 548 to 1,417](#). Educators have also [increasingly turned to generative AI tools](#) to allow students to receive immediate feedback on ideas and writing, brainstorming, and more.



## What are some of the benefits and drawbacks of EdTech?

Supporters of EdTech tout its ability to [build more interactive lessons](#), to [teach students to use technology responsibly](#), and to allow for larger class sizes without [compromising the quality of education](#). The wide use of tablets and educational apps in classrooms enables individually tailored lessons, especially in subjects like math where children vary widely in skills. Some supporters also see EdTech as a way to [combat education inequality](#), as it allows less wealthy school districts a low cost way to deliver content.

However, critics have noted [drawbacks](#) of increased reliance on EdTech tools, such as the [effect of technology on children's brain chemistry and mental health](#); [privacy and surveillance concerns](#); and a [lack of clarity on its regulation](#). Additionally, critics claim that some schools use EdTech to facilitate "tracking" – or grouping students according to perceived ability – which can [especially limit options](#) for children of color and other traditionally marginalized groups. For example, children tracked into lower reading and math groups are often [funneled into vocational programs and given limited educational opportunities](#). Critics also point to studies showing that the use of EdTech [has not significantly improved learning outcomes](#).



Moreover, critics have also observed that the underlying code and assumptions of these tools [can reflect the biases or prejudices of their creators](#), thereby reinforcing societal biases — notably racism and classism. Using biased algorithms in education can create a [vicious cycle](#) whereby marginalized groups are denied access to equal opportunities, proving the algorithm’s biases “correct” when those groups later underperform.



## Where does EdTech legislation stand?

Individual states and school districts have a large say in how EdTech tools are governed. For example, the [California Consumer Privacy Act](#) is one of the most comprehensive state laws in this space and governs the use of data in EdTech tools. Other states have laws focused on data privacy for minors that apply generally to all technology geared toward children, from EdTech to social media and video games. For example, New York’s [Parents’ Bill of Rights for Data Privacy and Security](#) gives parents certain rights over their minor children’s personally identifiable information (PII). Florida’s [Student Online Personal Information Protection Act](#) protects minor students’ PII from being released without authorization. Many large school districts have also taken action focused on data privacy and classroom EdTech use, such as the New York City Department of Education’s comprehensive set of guidelines for [data privacy](#) and [acceptable internet use](#).

Federal legislation governing EdTech is [mostly focused on protecting data privacy](#) on technology platforms. The two key federal laws that guide data privacy in EdTech are the [Family Educational Rights and Privacy Act of 1974 \(FERPA\)](#) and the [Children’s Online Privacy Protection Act of 2000 \(COPPA\)](#). FERPA is designed to protect student education records from unauthorized disclosure; it gives [parents certain rights with respect to their children’s education records](#). COPPA [imposes certain requirements on online services directed to children under 13](#). COPPA also allows for enforcement actions against violators, such as in the Federal Trade Commission’s [recent lawsuit](#) against Epic Games, alleging that Epic violated COPPA by tricking users (primarily children) into making charges without parental authorization.

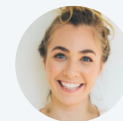
There is currently no federal legislation addressing algorithmic bias or discrimination in EdTech. The primary law governing public schools, the [2015 Every Student Succeeds Act \(ESSA\)](#), does not address equity in technology. Although one of ESSA’s aims is to facilitate the use of technological education, with a particular focus on data and evidence-based tools, it offers [little guidance on how those tools are to be developed or used](#). The Department of Education’s [Office of Educational Technology](#) offers limited “[Non-Regulatory Guidance](#)” for ESSA, but that does not address algorithmic bias in EdTech tools.

## ADDITIONAL INFORMATION

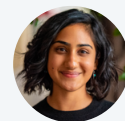
To learn more about proposals that school districts can take to improve the use of education technology, please see:

- An [EdTech design and school procurement toolkit](#) by Fellows Nidhi Hebbar and Madison Jacobs that helps individual school districts evaluate EdTech tools for racial bias;
- A [set of recommendations](#) by Fellow Ora Tanner on ways that Florida can ensure accountability, fairness, and transparency of student data in its Schools Safety Portal; and
- A [set of resources](#) by Fellow Alija Blackwell for how state governments can better protect student data.

## OUR EXPERTS



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