in·ter·op·er·a·bil·i·ty/noun

Interoperability is the **seamless**, **secure**, and **controlled exchange of data** between applications.

Unlike simple plug-and-play capabilities, or tech that only claims "integration," **true interoperability** allows data to easily flow among applications that are developed for different purposes using a **standardized vocabulary**, **structure**, and **cadence**.[1]

Plug-and-Play vs. True Interoperability

Use our handy guide to determine the right edtech system for your K-12 district needs.

84% of educators say interoperability is important or extremely important to their districts.[2]

Plug & Play

Works seamlessly on a specific OS, such as Windows (but **data remains siloed** from other applications running on the system)

Can share data, but **only through APIs**

Can provide multiple options for creating blended learning course, but **inconsistent integrations** and **data silos create barriers**

True Interoperability

Reduces operational costs

Improves **data connectivity**

Increases collaboration among teachers, staff, students, and parents

Heightens **student data security** and privacy[3]

Enhances reporting

VS.

Plug & Play		True Interoperability
Sometimes	SINGLE SIGN-ON (SSO)	Offers **single sign-on with one account and login for all programs**, saving users time and frustration so they don't have to remember and use multiple passwords
Each product provides its own interface, taking users longer to learn with increased training	SEAMLESS UX	Features common user interface with **familiar**, **intuitive user experience across programs**, making it easier to navigate and use program
Can affect security and increase risk of managing data exchanges between different vendors and platforms	SECURITY	**25%** reduction in IT time spent on system and data security management[4] A fully interoperable solution provides **security across systems**, giving superintendents, tech directors, and parents peace of mind
Lack of real-time visibility into student data and performance	DATA UPDATES	Updates data in **real-time across systems** connecting teachers, parents, and students
Does not automatically share data with other products; instead, requires patchwork of connections	DATA SHARING	Features a **common data model** to share data without the need for a separate application to translate; **no need to import/export data from program to program**
Inefficient processes; when applications are on multiple systems, teachers often have to duplicate data entry, **wasting valuable teaching and planning time**	EFFICIENCY	Streamlines access to applications and provides visibility into student performance; because **data from assessments, gradebooks**, and **class rosters sits in one platform** shared by all applications
None	MEETS RECOGNIZED DATA STANDARDS	**Meets consistent interoperability data standards**, making it easier to report student performance back to the state In addition to API integration, meets global standards such as Learning Tools Interoperability® (LTI®) and Common Cartridge® v1.1 and 1.2 import and 1.3 export.
None, with **no ability to see full view** of student performance	PERSONALIZED LEARNING	Enables **personalized learning with holistic view of student performance** by sharing valuable learning progress and data **between applications**
Individual products can be accessed by parents, but **multiple log-ins and interfaces limit usage**	PARENT ENGAGEMENT	**Improves communication and student success** by giving parents access to student progress data, including grades, attendance, discipline, and more
None	SCALABILITY FOR FUTURE GROWTH	Enables flexibility and scalability **across all schools in the district**

Success Story

Regional School Unit No. 10 **switched** from siloed products **to an interoperable, unified education technology solution**, including student information system, assessment, learning, and gradebook solutions.

> "Instructional time has increased significantly with the single sign-on. **That means more time spent focused on the student.** Having the gradebook, class pages and assessment all in one program, **efforts aren't duplicated and monitoring the progress of the student is fluid.** Communication with parents is better than it ever has been."
>
> **REINETTE CHENARD**
> Data Manager, RSU No. 10

> "I love that **it can score assignments**, **give students immediate feedback**, and **record the results of their work automatically** in the gradebook. I also really like having a **one-stop location for students and parents** to check grades, access lessons and assignments, and communicate upcoming events. **It is really nice to not have to have students** (and parents) **remember multiple websites, logins and passwords.**"
>
> **CHANDELE GRAY**
> High School Science Teacher,
> RSU No. 10.

READ THE CASE STUDY

> "For the majority of instructors who are not power users with tech, navigating hundreds of apps with inconsistent integrations… as well as data silos locked down by proprietary interests, still represent significant barriers to more widespread adoption of plug-and-play principles."
>
> *eLearning Industry*[5]

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[1] State Education Leadership Interoperability, Leveraging Data for Academic Excellence, State Educational Technology Directors Association (SETDA), 2018. http://www.setda.org/master/wp-content/uploads/2018/05/State-Leadership-Interoperability.pdf

[2] The State of Data Interoperability in Public Education. Digital Promise. The State of Digital Interoperability in Public Education, http://digitalpromise.org/wp-content/uploads/2017/08/DataInteroperability_Final.pdf

[3] Interoperability in K-12 Education, The Center for Digital Education, 2018. https://www1.powerschool.com/whitepaper/interoperability-in-k-12-education/

[4] Hobson & Company Research: The Case for a Unified Technology Platform, PowerSchool, https://www.powerschool.com/wp-content/uploads/2017/04/PS-wp-002-042217-download.pdf

[5] Scott, John Michael, "Preparing Teachers For Success In Plug-And-Play Ecosystems," eLearning Industry, June 25, 2016. https://elearningindustry.com/preparing-teachers-success-plug-and-play-ecosystems

What can interoperability do for your district?

Explore more about interoperability, including additional benefits and implementation strategies in

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