Key Terms Regarding Online Learning and Education Technology:
A Resource for Educators and Parents During the COVID-19 Disruption

As an educator or as the parent of a student with a disability, you may hear a lot of new terms being thrown around during the COVID-19 crisis. Education is notorious for having a lot of terms of art (what's often called "eduspeak"). Here are definitions of some of those terms and their implications for students with disabilities.

Accessibility

What it means	The implication for students with disabilities
Accessibility is the "ability to access" the functionality and benefit of some system or entity. This term is used to describe the degree to which a product (such as a device, a service, or an environment) is accessible by as many people as possible.[1] "Born accessible" (an ideal standard for accessibility) means that the origin and design of a product prevent the need for retrofitting inaccessible content after its creation, which can often be cost-prohibitive in terms of time and resources.[2]	The creators of many education technologies that were conceived and used before COVID-19 likely didn't envision the scale to which these tools have recently been deployed. This reality raises two issues related to accessibility: (1) physical accessibility to the software, hardware, and internet connection; and (2) pedagogical accessibility so that educators can leverage available technologies to deliver high-quality instruction and achieve learning goals for all students. Educators and vendors must work hand in hand to identify and address both types of accessibility issues within online and virtual learning settings.

Accommodations

What it means	The implication for students with disabilities
Accommodations are adaptations made for specific individuals with disabilities (as defined by law) when a product or service isn't accessible.[3]	The accommodations a student with a disability needs in a virtual learning setting may be different from what would be appropriate in a typical classroom setting. For example, an accommodation for a student with ADHD in a physical classroom may be to be seated in a part of the room that reduces distractions (called "preferential seating"). In a virtual learning situation, reducing distraction might be achieved by adjusting the visual layout of what's on a screen to help direct and sustain the student's focus. The IEP team—which includes educators, parents, the student, and others—should identify the accommodations a student currently receives based on the IEP, consider the purpose of these accommodations, and discuss how they need to be adjusted for an online setting.

Adaptive software

What it means	The implication for students with disabilities
Adaptive software is any software or program that builds a model of the preferences, goals, and knowledge of each individual student and uses that model throughout the interaction with the student in order to adapt to that student's assessed needs.[4]	Some adaptive software can adjust for the lexile (reading) level based on the student's responses. Some programs have read-aloud features. It's important to identify whether the software is adaptive to a particular student's needs. For example, a child may struggle with decoding but excel at reading comprehension. If the software doesn't allow the student to demonstrate proficiency in different aspects of learning, it could misinterpret the student's skills, resulting in a reduction in grade level or content level. This would compromise the overall quality of the student's education.

Assistive technology

What it means	The implication for students with disabilities
Assistive technology (AT) is any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability.[5]	Assistive technology is designed to help individuals overcome challenges with particular tasks or in particular environments. When shifting from face-to-face to online learning, the types of assistive technologies that are most helpful may change. IEP teams should review how AT was used by students in school, and determine whether additional or alternative forms of assistive technology are needed in this new circumstance.

Asynchronous vs. synchronous instruction

What it means	The implication for students with disabilities
Asynchronous instruction is teaching that is offered at a different place or time than when or where the actual instruction is being provided (e.g., video modules that students can access without being connected to an instructor or peers in real time). In contrast, synchronous instruction can happen in different locations, but it occurs at the same time that the instruction is being delivered. It's delivered through methods such as real-time chats and videoconferencing.	Students with disabilities in online environments can benefit from both of these types of instruction. But there are trade-offs with each, so the two modes are complementary. Asynchronous instruction denies educators access to visual cues and doesn't allow for real-time feedback to students. During synchronous instruction, students with disabilities may struggle to remain focused, organize information effectively, and keep track of questions for later reference.

Learning management system (LMS)

What it means	The implication for students with disabilities
Learning management systems are electronic systems and methods that support the timely creation, scheduling, and delivery of course materials in education.[6]	In the absence of face-to-face contact between adults and students, districts and schools will have to rely more on an LMS than ever before. But an LMS designed to address the needs of whole school or district-wide instruction—as well as data collection—might not be inclusive or responsive to the needs of students with disabilities. It's critical that schools immediately consider how their LMS addresses the need for accessibility and enables the delivery of content and needed support to students with disabilities. Also critical is for schools and districts to identify whether existing LMS need to be adapted to ensure that educators are well prepared to support student learning in an accessible manner. Schools should consult with vendors to integrate any add-ons that ensure the products serve multiple functions and meet the needs of all students. Schools will also need to communicate clearly with students and their families to ensure that everyone feels empowered to access and participate in high-quality learning.

Online learning

What it means	The implication for students with disabilities
Also referred to as e-learning and virtual learning, online learning is a type of distance learning in which instruction and content are delivered primarily over the internet or through software.[7]	One new reality of COVID-19 is that the vast majority of students with disabilities who were previously attending brick-and-mortar schools are now learning in online settings. Schools, students, and families must contend with a number of challenges, ranging from the physiological (e.g., ensuring that students feel safe, have access to their social peers, and receive nutritious meals) to the pedagogical (e.g., ensuring that students have access to content learning and that teachers and students communicate via phone, chats, and other online features).

Open education resources

What it means

Open education resources (OER) are any type of educational materials that are in the public domain or introduced with an open license (free for public use).[8]

The implication for students with disabilities

COVID-19 has resulted in parents and educators scrambling to identify resources that could be helpful to accelerate learning in an online and home-based environment. One caution is that many of these resources are not aligned with principles of Universal Design for Learning, or UDL (see below). The OER field is diverse in both quality and accessibility. Many major textbook publishers have already begun to make changes to products to reflect UDL standards. Schools, districts, and educators should determine whether a particular OER is appropriate for students with disabilities. If it's not, it's important to determine what steps need to be taken to ensure that these students can access and benefit from OER materials.

Universal Design for Learning (UDL)

What it means

Universal Design for Learning (UDL) is a way to optimize teaching to effectively instruct a diverse group of learners. The approach is based on insights from the science of how people learn. It emphasizes accessibility in how students access material, engage with it, and show what they know.[9]

The implication for students with disabilities

UDL can be applied to educational settings that are in-person or virtual. To engage all learners, educators must align instruction, materials, and technology with principles of UDL. The specific learning platform being used to organize and deliver content and activities will need to have built-in features of UDL, such as allowing students to access and represent learning in different ways. Educators will also need instruction and support about ways to incorporate features of UDL into their online instruction.

Endnotes

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6   Masood, R., Seshadri, N., & Bhargava, A. (2019). U.S. Patent No. 10,423,929. Washington, DC: U.S. Patent and Trademark Office.

7   International Association for K–12 Online Learning. (2011, October). The Online Learning Definitions Project. Retrieved from **https://www.inacol.org/wp-content/uploads/2015/02/iNACOL_DefinitionsProject.pdf**

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