

Digital Learning Glossary of Terms

21st Century skills—Skills necessary for all children to succeed as citizens and workers in this century. These skills such as collaboration and teamwork, creativity and imagination, critical thinking, problem solving, digital literacy and citizenship are building blocks for learning.

(Source: The Glossary of Education Reform, <http://edglossary.org/21st-century-skills/>)

Accessibility—The design of apps, devices, materials and environments that support and enable access to content and educational activities for all learners. In addition to enabling students with disabilities to use content and participate in activities, the concepts also apply to accommodating the individual learning needs of students, such as English language learners, students in rural communities, or students from economically disadvantaged homes. Technology can support accessibility through embedded assistance—for example; text-to-speech, audio and digital text formats of instructional materials, programs that differentiate instruction, adaptive testing, built-in accommodations, and other assistive technology tools.

Adaptive learning—An approach to creating a personalized learning experience for students that employs "a sophisticated, data-driven, and in some cases, nonlinear approach to instruction and remediation, adjusting to a learner's interactions and demonstrated performance level, and subsequently anticipating what types of content and resources learners need at a specific point in time to make progress." (Source: The Journal, <https://thejournal.com/articles/2014/05/14/adaptive-learning-are-we-there-yet.aspx>)

Agency in learning—Learners with agency can “intentionally make things happen by [their] actions,” and “agency enables people to play a part in their self-development, adaptation, and self-renewal with changing times.” To build this capacity, learners should have the opportunity to make meaningful choices about their learning, and they need practice at doing so effectively. Learners who successfully develop this ability lay the foundation for lifelong, self-directed learning.

Assistive technology device—Any item, or piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of a child with a disability. (Source: 20 U.S.C. §1401(1))

Assistive technology service—A service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. (Source: 20 U.S.C. §1401(2))

Asynchronous—Forms of accessing and providing information that does not require interaction with others to occur at the same time, i.e., forums, blogs, email, website links, etc.

Authentic learning—An instructional approach that allows students to explore, discuss, and meaningfully construct concepts and relationships in contexts that involve real-world problems and projects that are relevant to the learner. (Source: www.wikipedia.com)

Biased—A slanted opinion for or against someone or something.

Biased site—A site where materials are slanted to support or oppose a specific point of view on a topic.

Blended learning—Learning occurs online and in person, augmenting and supporting teacher practice. This approach often allows students to have some control over time, place, path or pace of learning. In many blended learning models, students spend some of their face-to-face time with the teacher in a larger group, some face-to-face time with a teacher or tutor in a small group, and some time learning with and from peers. Blended learning often benefits from a reconfiguration of the physical learning space to facilitate learning activities providing a variety of technology-enabled learning zones optimized for collaboration, informal learning, and individual-focused study. (Source: National Educational Technology Plan, p. 8, <http://tech.ed.gov/netp/>)

Blended Rotation Model—A course or subject in which students rotate on a fixed schedule or at the teacher’s discretion between learning modalities, at least one of which is online learning. Other modalities might include activities such as small-group or full-class instruction, group projects, individual tutoring, and pencil-and-paper assignments. The students learn mostly on the brick-and-mortar campus, except for any homework assignments. (Source: www.christenseninstitute.org/blended-learning-definitions-and-models/?gclid=Cl_urPey6scCFYORHwod0hUD-A#sthash.PVbvHrIT.dpuf)

Coding—A term used in PK-12 education to mean programming. It is the [process](#) of [developing](#) and implementing various [sets](#) of [instructions](#) to enable a computer to do a certain [task](#). (Source: www.businessdictionary.com/definition/computer-programming.html)

Community of practice (CoP)—Practitioners, or “experts,” in a specific domain of interest (i.e., same profession) who share information and experiences with the group face-to-face or in online communities such as online SIGs (Special Interest Groups), LinkedIn, Twitter feed, etc. so that the members learn from each other and have an opportunity to develop themselves personally and professionally (Source: [Lave & Wenger 1991](#))

Competency-based learning—An approach that allows students to advance based on their ability to master a skill or competency at their own pace regardless of environment. (Source: Educause, www.educause.edu/)

Cyber safety—The safe and responsible use of information and communication online that maximizes the user's personal safety and minimizes security risks.

Data culture—An educational environment characterized by the effective use of data and evidence-based reasoning to strategically inform teaching and learning decisions.

Data security—The policies and practices that ensure data are kept safe from corruption and that access is limited and appropriate. Data security helps ensure privacy and protects personally identifiable information. (Source: <http://dataqualitycampaign.org/>)

Deeper learning—The students' ability to use higher-order cognitive skills to construct long-term understanding. It involves the critical analysis of new ideas linking them to already known concepts and principles so that this understanding can be used for problem-solving in new unfamiliar contexts. (Source: Article, www.julianhermida.com/algoma/law1scotldeeplearning.htm)

Differentiated instruction— Differentiation is responsive teaching rather than one size fits all teaching (Tomlinson, 2005). Teachers proactively plan varied approaches to what students need to learn, how they will learn it, and/or how they will show what they have learned in order to increase the likelihood that each student will learn as much as he or she can, as efficiently as possible (Tomlinson, 2003, <http://differentiationcentral.com/DIis.html>)

Digital citizenship—The norms of appropriate and responsible behavior with regard to technology use.

Digital collaborative workspace—An interconnected digital environment in which participants in dispersed locations can access and interact with each other as if in one big room.

Digital divide—The gap between students with access to the Internet and devices at school and home and those who do not.

Digital learning – Any instructional practice that effectively uses technology to strengthen a student's learning experience and encompasses a wide spectrum of tools and practices, including -

(A) interactive learning resources, digital learning content (which may include openly licensed content), software, or simulations, that engage students in academic content;

(B) access to online databases and other primary source documents;

(C) the use of data and information to personalize learning and provide targeted supplementary instruction;

(D) online and computer-based assessments;

(E) learning environments that allow for rich collaboration and communication, which may include student collaboration with content experts and peers;

(F) hybrid or blended learning, which occurs during direct instructor supervision at a school or other location away from home and, at least in part, through online delivery of instruction with some element of student control over time, place, path or pace; and

(G) access to online course opportunities for students in rural or remote areas. (Source: Every Student Succeeds Act, 2015, www.ed.gov/essa)

The proper implementation of digital learning broadens, strengthens, and deepens student learning through the use of technology as a cognitive tool for problem solving, conceptual development and critical thinking, which allows them to interpret, organize, demonstrate and manage their knowledge.

Digital learning environment—A place of learning that uses technology to expand the classroom into the local or global community, where students have the opportunity to develop both academic skills and 21st century skills, and are engaged in authentic tasks that have a connection to the real world.

Digital literacy—The ability to use digital technology, communication tools or networks to locate, evaluate, use and create information; The ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers; A person's ability to perform tasks effectively in a digital environment. Literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environments. (Source: University Library, University of Illinois, www.library.illinois.edu/digit/definition.html)

Digital use divide—Separates many students who use technology in ways that transform their learning from those who use the tools to complete the same activities but now with an electronic device (e.g. digital worksheets, online multiple-choice test). The digital use divide is present in both formal and informal learning settings and across high-and low-poverty schools and communities.

District brand—The marketing practice of creating a name, symbol or design that identifies and differentiates a district from other districts. A brand is derived from who you are, who you want to be and who people perceive you to be. (Source: Articles, www.entrepreneur.com/encyclopedia/branding and http://blogs.edweek.org/edweek/finding_common_ground/2013/12/why_leaders_should_brand_their_schools.html)

Document management—Tools for storing, sharing, and organizing documents electronically such as file storage and organization tools.

Educational technology—The practice of using technology in instructional settings in support of teaching, learning and academic achievement.

Equity—Increasing all students’ access to educational opportunities with a focus on closing achievement gaps and removing barriers students face based on their race, ethnicity, or national origin; sex; sexual orientation or gender identity or expression; disability; English language ability; religion; socio-economic status; or geographical location.

Flexible instructional time (Flexing instructional time)—Scheduling instructional periods in a way that provides greater flexibility in how the time is used for teaching and learning (i.e., longer class periods; open periods in which students are scheduled into “free” periods where they determine how to use that instruction time for project work, to meet with teachers, to work with experts, to learn online, or to conduct research.)

Flipped classroom—A course or subject in which students participate in the primary delivery of instruction by online learning off-site in place of traditional homework and then attending the brick-and-mortar school for a face-to-face to session to address the issues and questions stemming from the students’ work, to provide opportunity for practice and reinforcement, to provide feedback, and to modify instructional guidance to meet student needs.

Game-based learning (GBL)—Students learn through playing games. (Source: Teachthought, www.teachthought.com/technology/difference-gamification-game-based-learning/)

Gamification—The application of game-like mechanics to non-game entities to encourage a specific behavior. (Source: Teachthought, www.teachthought.com/technology/difference-gamification-game-based-learning/)

Informal learning—It is acquiring new knowledge through observation and personal experiences. Learning that is typically without the direct reliance on a teacher or an externally-organized curriculum; or, if a teacher is involved, the learning is incidental or spontaneous.

Makers—Individuals who use their imagination and resources to design and build new things. Makers are hobbyists, contractors, artists, engineers, students, teachers, tinkerers, cooks, technology enthusiasts, architects, crafters, performers, scientists, writers, etc.

Maker movement—Nurtures the design-it-yourself, hands-on, do-it-yourself (DIY) development of products such as a written work, computer program, circuit development, movie, robotics, 3D

printed objects, etc. Maker spaces often support this participatory learning with tools, materials, and technologies that may not ordinarily be accessible.

Maker spaces—Designated areas where an individual or a group (also known as Fab Labs, Hacker Spaces, and Creative 3D Learning Spaces) learns through creative design and building activities.

Non-authoritative website—A website written by person(s) or groups who are not known experts in the topic; or, the authors may not be endowed with the authority to publish information on the website.

Non-cognitive competencies (also referred to as **social and emotional learning**)—A range of skills, habits and attitudes that facilitate functioning well in school, work, and life. They include self-awareness, self-management, social awareness, and relationship skills as well as perseverance, motivation and growth mindsets.

Performance-based learning—A set of strategies for the acquisition, application and practice of content knowledge, acquired skills, and work habits in “real world” situations that are meaningful and engaging to students.

Personalization or personalized learning—Instruction in which the pace of learning and the instructional approach are optimized for the needs of each learner. Learning objectives, instructional approaches and instructional content (and its sequencing) all may vary based on learner needs. In addition, learning activities are meaningful and relevant to learners, driven by their interests and often self-initiated. It may include a diverse variety of educational programs, [learning experiences](#), instructional approaches, and [academic-support strategies](#).

Privacy—The balance between collection and dissemination of data, technology, and individuals’ right to have their personal information kept private.

(Source: Data Quality Campaign, <http://dataqualitycampaign.org/>)

Problem-based learning—Student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem. (Source: www.Wikipedia.com)

Project-based learning—Inquiry-based instructional approach that utilizes projects as a central organizing strategy for educating students.

Return on investment (ROI)—Refers to the benefit obtained from an investment of a resource such as time, money, an intervention or a transaction. It may yield a favorable or unfavorable benefit (return). In education, the favorable benefit could be greater student learning, higher graduation rates or increased lifetime earnings and career options.

Self-direction—A combination of beliefs, attitudes, and behaviors that empowers a person to guide, manage, evaluate, and take ownership for his or her own learning.

Source code—A list of instructions in a computer language that is read and modified by a programmer for the purpose of programming a computer to complete a task. The source code is then translated by a compiler into object (or machine) code so that the computer can understand and perform the task.

Student-centered learning—A wide variety of educational programs, learning, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students and groups of students. (Source: The Glossary of Education Reform, <http://edglossary.org/student-centered-learning/>)

Synchronous tools—Ways of accessing and providing information that require interaction with others to occur at the same time, i.e., interactive webinars, videoconferencing.

Total cost of ownership (TCO)—The purchase price of an asset plus the costs of operation (including the depreciation) over the life cycle of the system such as acquiring and maintaining networks and staff.

Transformative budgeting for digital learning—A process by which innovations in schools are accomplished within existing budgets. Three essential strategies characterize transformative budgeting when applied to technology readiness for digital learning. They are: 1) Alignment of technology expenditures with the goals in the district’s strategic plans; 2) A cross-functional budget leadership team that brings together finance, technology, curriculum; and 3) Transformative zero-based budgeting. (Source: NJDOE’s NJ Digital Learning portal, <http://nidigitallearning.org/wp-content/uploads/2015/04/Transformative-Budgeting-final.pdf>.)

Unbiased—A fair or impartial opinion.

Universal Design for Learning (UDL)—A scientifically valid framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn. ([CAST](#))

- (A) Provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and
- (B) Reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.

Usable design—The "effectiveness, efficiency, and satisfaction with which a specified set of users can achieve a specified set of tasks in a particular environment." Usability engineers test the ease with which users can learn to operate a product and remember how to do so when they return to the product at a later time. Source: [International Organization for Standardization](#)

Usability engineers are concerned with aspects of the user experience that include:

- Learnability: Can users easily learn how to operate the product, and can they remember how to perform tasks when they return to the product the next time?
- Consistency: Are product features clearly and consistently labeled?
- Efficiency and effectiveness: Can users perform tasks with a minimal amount of effort and achieve their goals successfully?

Source: Disabilities, Opportunities, Internetworking, and Technology, www.washington.edu/doit/what-difference-between-accessible-usable-and-universal-design

Visualization tools—Tools that support the visual representation of thinking and ideas such as charting, graphing, or concept mapping tools.

Zero-based budgeting—A system of budgeting where education leaders begin each budget cycle at zero in each category, and then add costs to the budget only when there is evidence that such costs are required to meet goals.

In addition to the web links above, below are other sources used to develop some of the above definitions:

<http://www.webopedia.com/>

<https://en.wikipedia.org/>

<http://www.udlcenter.org/aboutudl/udldefined>

http://images.email.blackboard.com/Web/BlackboardInc/%7B2a4b9de0-d95f-4159-98a2-b5b305affdcc%7D_Clarifying_CBE_Terms.pdf

<https://www.google.com/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=deeper+learning+definition>

<http://ww2.kqed.org/mindshift/2012/09/13/how-do-we-define-and-measure-deeper-learning/>

http://www.ascd.org/publications/books/196021/chapters/What_is_Performance-Based_Learning_and_Assessment,_and_Why_is_it_Important%2%A2.aspx