

# Future Ready Framework Definitions

## Curriculum, Instruction, and Assessment

Through a more flexible, consistent, and personalized approach to academic content design, instruction, and assessment, teachers will have robust and adaptive tools to customize the instruction for groups of students or on a student-to-student basis to ensure relevance and deep understanding of complex issues and topics. Providing multiple sources of high quality academic content offers students much greater opportunities to personalize learning and reflect on their own work, think critically, and engage frequently to enable deeper understanding of complex topics. Data are the building blocks of diagnostic, formative, and summative assessments—all of which are key elements in a system where learning is personalized, individualized, and differentiated to ensure learner success.

- **21st Century Skills/Deeper Learning:** Curriculum, instruction, and assessment are based on clear expectations that all students will leave the education system well staged for college acceptance or for alternative paths to workplace readiness. These expectations mandate solid grounding in standards-based content, but also intentionally integrate elements of deeper learning, such as critical thinking, creativity and innovation, and self-direction; as well as providing opportunities for authentic learning in the context of today's digital society.
- **Personalized Learning:** Educators leverage technology and diverse learning resources to personalize the learning experience for each student. Personalization involves tailoring content, pacing, and feedback to the needs of each student and empowering students to regulate and take ownership of some aspects of their learning.
- **Collaborative, Relevant, and Applied Learning:** In digital learning environments, students do work similar to that of professionals in the larger society. They collaborate with educators, fellow students, and others outside of the school environment on projects that often (1) involve the creation of knowledge products, (2) foster deep learning, and (3) have value beyond the classroom walls.
- **Leveraging Technology:** Educators in digital learning environments integrate learning-enabling technology seamlessly into the teaching and learning process. These educators have the skills to adopt multiple, highly effective learning technologies and adapt to diverse, evolving learning structures to assure that the use of technology adds value to the learning process.
- **Assessment - Analytics Inform Instruction:** The district and its schools use technology as a vehicle for diagnostic, formative, and summative assessment. The school system has mechanisms (i.e., processes and digital environments) for using data to improve, enrich, and guide the learning process. Educators actively use data to guide choices related to curriculum, content, and instructional strategies.

## Use of Space and Time

Student-centric learning requires changes in the way instructional time is used. There are new opportunities for utilizing in-school and out-of-school time, and leveraging approaches such as competency-based learning to make learning more personalized and learning opportunities more accessible. These new opportunities leverage technology to meet the needs, pace, interests, and preferences of the learner. This transition is made possible through innovative uses of technology for assessing student learning, managing learning, engaging students in learning, disseminating content, and providing the infrastructure necessary to encourage flexible, anytime, anywhere learning opportunities.

- **Flexible Learning, Anytime, Anywhere:** By leveraging technology and media resources, digital learning options are available for students at any time of day, from home, at school, and in the community. The value of anytime, anywhere learning is dependent on access and capacity for use; ubiquitous, robust internet access and the capacity to use digital learning tools and resources effectively.
- **New Pedagogy, Schedules, and Learning Environments for Personalized Learning:** To facilitate more personalized learning, educators work together to identify and validate new designs for personalized

learning where the use of time is adaptable and flexible. Associated resources are made available to all students both synchronously and asynchronously to promote flexibility.

- **Competency-Based Learning:** One facet of personalized learning, Competency-Based Learning (CBL), integrates student voice and choice, flexible paced learning with timely support, and demonstration of academic proficiency. Pace of learning is flexible based on the needs of individual students and the challenges of complex, often project-based work. Timely support is provided to accommodate learning needs and guarantee access to content and resources. Upon mastery of explicit, measurable and transferable outcomes that demonstrate the application and creation of knowledge, learners move on to a new, targeted standard or course.
- **Strategies for Providing Extended Time for Projects and Collaboration:** Districts are re-imagining the school day and school year by re-designing and extending learning time, providing greater access to integrated enrichment and quality instruction. Rather than rigid schedules and short class periods, time allocations are flexible, allowing for extended schedules and work time for complex projects. Digital learning enables students to productively use time during and beyond the school day, often redefining homework time.

## Robust Infrastructure

When employed as part of a comprehensive educational strategy, the effective use of technology provides tools, resources, data, and supportive systems that increase teaching opportunities and promote efficiency. Such environments enable anytime, anywhere learning based on competency and mastery with empowered caring adults who are guiding the way for each student to succeed. High quality, high speed technology and infrastructure systems within a school district are essential to the advancing of digital learning.

- **Adequacy of Devices; Quality and Availability:** The school has considered a host of creative options to ensure that diverse and appropriate technology devices are available to all students and staff to support powerful digital learning at any time, from any location.
- **Robust Network Infrastructure:** Adequate bandwidth and a supportive infrastructure are in place to ensure ready and consistent access to online resources for teaching and learning. Teams monitor usage and identify possible bottlenecks prior to them affecting teaching and learning. Privacy, safety and security are primary concerns as well. The school community collaboratively designs responsible use policies, and confirm that the network design is supportive of these policies.
- **Adequate and Responsive Support:** Sufficient technical and instructional support, characterized by a positive service orientation, is available in every school. This support is proactive, providing resources, coaching, and just-in-time instruction to prepare teachers and students to use new technologies, thereby reducing the need for interventions during the learning process.
- **Formal Cycle for Review and Replacement:** Teams continuously monitor technologies—software, hardware, and infrastructure—to ensure upgrades, additions, and, when called for, sunset/eliminations in a timely, environmentally responsible, and proactive manner.

## Data and Privacy

Data and privacy are foundational elements of digital learning. A personalized, learner-centered environment uses technology to collect, analyze, and organize data to improve the effectiveness and efficiency of learning. Data is the building block of diagnostic, formative, and summative assessments—all of which are key elements in a system where learning is personalized, individualized, and differentiated to ensure learner success. The district ensures that sound data privacy and security policies, procedures, and practices are in place at the district, school, classroom, and student levels.

- **Data and Data Systems:** To facilitate data-driven decision making, appropriate data (i.e., data dashboards and data analytics) are readily available, easily comprehensible, and useful for supporting the decision making processes. The data are available at any time, on any desktop, and from any

location, made available through real-time access to data dashboards, data analytics, and data warehouses.

- **Data Policies, Procedures, and Practices:** Using the Family Educational Rights and Privacy Act (FERPA) as the basis, the district has up-to-date policies, procedures, and practices that address legal, ethical, and safety issues related to the privacy and security of data, and the usage of data, technology, and the Internet. Such policies, procedures and practices address the collection, storage, analysis, reporting, transmission, and archiving of data, as well as the usage of data, the Internet, and technology by students and education professionals in the course of teaching, learning, communications, and the management of school services.
- **Data-Informed Decision Making:** The use of formative and summative assessment data is part of the school culture, with administrators, teachers, and, perhaps most importantly, students actively using this data to improve learning. Assessment is not viewed as punitive, but rather as part of the teaching and learning process. There is an expectation in the district that data will inform all teaching and learning practices and decisions. This is modeled at all levels of the school system, from administration to the students themselves.
- **Data Literate Education Professionals:** Educators in the system are data-literate. They are aware of the legal and ethical responsibility to ensure security, accuracy, and privacy in the collection, analysis, exchange of, and reporting of data. They understand the potential uses and misuses of data in the teaching and learning process and act accordingly. All education professionals in the district use data to inform instructional and administrative decision making. Data literacy extends to students as well as curricula are reviewed and updated to make effective use of evidence and data a priority for all.

## Community Partnerships

Community partnerships include the formal and informal local and global community connections, collaborative projects, and relationships that advance the school's learning goals. Digital communications, online communities, social media, and digital learning environments often serve as connectors for these partnerships.

- **Local Community Engagement and Outreach:** The school serves as a hub of the local community. As such, it actively involves the community in achieving its learning goals, reaching out to the community to (1) extend learning into community centers, libraries, businesses, higher education institutions, museums, and other public spaces;(2) bring relevance to curricula through partnerships that take the shape of apprenticeships, community service, and the use of community-based experts and resources;(3) implement community-based exhibitions, reviews, critiques, and celebrations of student work; and (4) coordinate after school programs, including collaboration with the school and students' teachers. Community Engagement and Outreach.
- **Global and Cultural Awareness:** The community partnerships extend and deepen students' knowledge, understanding, and appreciation of cultures and communities other than their own. Digital networks enable students and education professionals to connect, interact, and collaborate with other students, experts, and organizations from outside of their locale. The school builds the capacity of students to recognize and value diversity, enabling them to participate successfully in community partnerships online and face-to-face.
- **Digital Learning Environments as Connectors to Local/Global Communities:** The school district has established a digital learning environment that offers students access, e-communication, resource libraries, file exchanges, and Web tools, which facilitate interactions among peers and between teachers, parents, and students in school and beyond. District leaders build digital citizenship in students and structure online communities that to ensure online safety and security.

- **Parental Communication and Engagement:** School leaders engage parents and students in home-to-school communications through a variety of venues. While this may include internet-based solutions, it also includes options that do not depend on connectivity in the home.
- **District/School Brand:** Branding is defined as the marketing practice of creating a name, symbol, or design that identifies and differentiates a product from other products. It's critical that our schools develop a brand as well, and that the brand represents visionary thinking and 21st Century learning. The brand should be transparent to all members within the organization—they must all be telling the same story, one that they believe in and stand behind.

## Personalized Professional Learning

Technology and digital learning can increase professional learning opportunities by expanding access to high-quality, ongoing, job-embedded opportunities for professional growth for teachers, administrators, and other education professionals. Such opportunities ultimately lead to improvements in student success and create broader understanding of the skills that comprise success in a digital age. Digital Professional learning communities, peer-to-peer lesson sharing, and better use of data and formative assessment, combined with less emphasis on "sit and get" professional development sessions eliminate the confines of geography and time. These ever-increasing resources offer teachers and administrators vast new opportunities to collaborate, learn, share, and produce best practices with colleagues in school buildings across the country. Digital leaders establish this type of collaborative culture. They model and are transparent with their own learning. In addition, educators must be engaged in more collaborative, goal-oriented approaches to the evaluation of their own teaching to serve as a personal model for the experiences that they might bring to students.

- **Shared Ownership and Responsibility for Professional Growth:** Teachers, administrators, and other education professionals actively support their own professional practices by using technology, eLearning, and social media to optimize learning and teaching. They are actively taking responsibility for their own professional growth through professional learning networks (PLNs), online communities of practice, eLearning, and social media (e.g., Twitter feeds, EdCamps, blogging and following bloggers, on-demand videos, etc.). Educators have access to collaborative tools and digital environments that break down classroom, school, and district walls. Professional development encourages, facilitates, and often requires that they individually and collaboratively create, join, and sustain professional networks both within and outside of the district, frequently leveraging the latest in social media. The district has established flexible policies and practices that encourage and credit the personalization of professional learning for teachers, administrators and other education professionals.
- **21st Century Skill Set:** Educators have the opportunity to expand their knowledge and skills to address a 21st Century focus (e.g., critical thinking, collaboration, creativity, communication, technology competencies, self-direction, information literacy, etc.). Professional learning includes immersion in the learning sciences research to provide support and insights into more student-centered instructional practices and for the purposeful promotion of deeper learning/21st Century skills in all students. Educators master a variety of new, research-based instructional strategies to better engage students and prepare them for college and beyond. In doing so they broaden their own 21st Century skill set.
- **Diverse Opportunities for Professional Learning Through Technology:** Digital leaders model new types of professional learning and ensure that educators have access to (and the technology savvy necessary to leverage) professional development opportunities that are diverse, customizable and often supported by the latest technologies. Professional learning is available anytime in a variety of modes. Alternative models are supported through coherent policies and practices in the district.
- **Broad-Based Participative Evaluation:** In order to promote goal-oriented, self-regulated professional behaviors, evaluation is participative (i.e., the educator who is the subject of evaluation is actively involved in goal-setting, collecting indicators of progress, and self-evaluative behaviors). Professional

evaluation uses a broad set of indicators that includes student achievement, evidence of improved instructional practice, student engagement, and 21st Century skill attainment.

## Budget and Resources

An effective budget development and review process is guided by a deep understanding of school finance at the District, State and Federal levels. Funding a digital learning environment requires strategic, short-term and long-term budgeting that leverages the use of learning-enabling technology and resources to optimize student learning. All budgets at the district and the school level are aligned in order to prioritize student learning and cost-efficiency, with consistent funding streams for both recurring and nonrecurring costs. The District's financial model includes the metrics and processes to determine Total Cost of Ownership (TCO) for developing and sustaining the digital learning environment and to ensure accountability for determining learning Return On Investment (ROI).

- **Efficiency and Cost Savings:** Innovative funding for digital learning leverages technologies to improve teaching and learning as well as to increase efficiency and cost savings. A cross-functional District budget development team is formed that is composed of District leaders, key stakeholders, and subject matter experts who collectively represent the District's interests. This team employs strategies for calculating the total cost of ownership (TCO) for all technology resources; focusing on learning-enabling technology, digital resources and instructional practice.
- **Alignment to District and School Plans:** Priorities for budget and resources are clearly linked to district- and building-level strategic and tactical plans and to continuous improvement goals. All expenditures must be justified as supportive of these plans. Innovative programs are funded conditionally upon their alignment to the district's vision and mission.
- **Consistent Funding Streams:** The District has consistent and flexible funding that enables equitable access to optimal learning environments. Budgets for technology-enabled learning tools and resources are addressed in short and long-term fiscal plans. Funding sources are identified in the District's annual maintenance and operation budgets with minimal reliance on grants or other temporary sources. Funding for digital learning is integrated across multiple budget areas where appropriate.
- **Learning Return on Investment:** All metrics for review of budget priorities and cost-efficiency are based on their demonstrated relationship to student learning goals. District leaders have strategies and tools for measuring Return On Investment (ROI) in digital learning; focusing on learning-enabling technologies, resources, instructional practice and student learning.

## Collaborative Leadership

The Future Ready framework is a systemic planning framework around the effective use of technology and digital learning to achieve the goal of "career and college readiness" for all students. While the seven interdependent Gears provide a roadmap toward digital learning, success within a district is dependent on innovative leadership at all levels. First and foremost, leaders within a district must be empowered to think and act innovatively; they must believe in the district's shared, forward-thinking vision for deeper learning through effective uses of digital, 21st Century technologies. Critical to their success will be a culture of innovation that builds the capacity of students, teachers, administrators, parents, and community to work collaboratively toward that preferred future. The policy foundation that results must be coherent with that vision. Unleashed in a culture of vision and empowerment, leaders will have the flexibility and adaptability they require to prepare their students to thrive in the 21st Century.

- **A Shared, Forward-Thinking Vision for Digital Learning:** The district recognizes that, to prepare their students to thrive in today's connected, fast-paced society will require an education that engages students in evidence-based, deeper learning through smart uses of technology and new pedagogies. The district has engaged students, teachers, administrators, parents, and the community in the

envisioning of a transformed education system that personalizes learning for all students through the effective uses of technology.

- **A Culture of Collaboration, Innovation, Capacity Building, and Empowerment:** The District leadership team has established a collaborative culture of innovation in which leaders at all levels are empowered to innovate. The capacity of leaders to innovate is maximized through a culture of trust and respect, providing leaders with the flexibility and adaptability they require to lead. This culture leads to sustainable change, informed by research and facilitated by digital leaders.
- **High Expectations for Evidence-Based Transformations to Digital Learning:** Across the district, teachers, administrators, and students are expected to show progress toward the district vision. The district has established metrics for gauging such progress and is working across the district to monitor progress and to use evidence-based decision making to ensure that technologies are implemented in ways that advance the vision.
- **Transformative, Coherent Thinking, Planning, Policies, and Implementation:** The district's forward-thinking vision is advanced through leaders' transformative thinking. Leaders have ensured that the district's policies are coherent with the philosophy underpinning the vision (e. g., personalizing professional learning for education professionals, just as they personalize learning for students). They have developed strategic plans that map potential pathways to the district's preferred future, and have created the tactical and financial plans and dedicated budget necessary for implementation. As they implement they monitor, adjust, build capacity, and incrementally improve.



# Glossary

- **21st Century Skills:** 21st Century Skills are essential skills that children need to succeed as citizens and workers in the 21st century. They include core subjects, 21st century content, learning and thinking skills, ICT literacy, and life skills.
- **Adaptive learning:** An approach that uses technology to engage students in interactive learning activities, which are customized to meet each individual's learning needs, based on continuous feedback and data analytics.
- **Authentic learning:** A general model for designing learning activities that are rigorous, in-depth and have value beyond the classroom. The work assigned in authentic learning environments often mirrors the type of work done in the real world.
- **Blended learning:** Blended learning describes models of learning where a student learns at least in part at a supervised brick and-mortar location away from home and at least in part through online delivery with some element of student control over time, place, path, and/or pace; often synonymous with hybrid learning. (Horn and Staker, 2011)
- **Collaborative Workspaces:** Any tool that allows for collaboration or access to shared documents such as Google Docs or TeamBox.
- **Competency-based:** A type of learning where the student advances in mastery of a set of competencies at a pace, and often in an order, determined by the student.
- **Data culture:** An educational environment characterized by the effective use of data and evidence-based reasoning.
- **Deeper learning:** Deeper learning prepares students to know and master core academic content, think critically and solve complex problems, work collaboratively, communicate effectively, and be self-directed and able to incorporate feedback. It enables graduating high school students to be college and career ready and to make maximum use of their knowledge in life and work.
- **Digital Citizenship:** Understanding the safety concerns, rights and responsibilities necessary to access and participate in online communications or communities.
- **Document Management:** Tools for storing, sharing and organizing documents such as drop boxes, file storage and organization tools, shared public spaces, etc.
- **Performance-based:** Learning activities that require complex performances as demonstrations of knowledge.
- **Personalized learning:** An approach to learning that is student-centric, where students have a significant degree of control and choice in what, when, and how they learn.
- **Privacy:** The balance between collection and dissemination of data, technology, and individuals' right to have their personal information kept private. (Source: Data Quality Campaign.)
- **Project-based learning:** Inquiry-based learning where learning takes place in response to a complex question or challenge.
- **Security:** The policies and practices implemented at the state, district, and school levels to ensure that data are kept safe from corruption and that access is limited and appropriate. Data security helps ensure privacy and protects personally identifiable information. (Source: Data Quality Campaign.)
- **Synchronous Tools:** Communication tools that support real-time communication such as webinars, Skype or chat rooms.
- **Visualization Tools:** Tools that support the visual representation of thinking and ideas such as charting, graphing, or concept mapping tools.

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