Pencils down. It’s just about time to stop preparing for online assessments and time to start implementing them. The new tests will mark a fundamental change from paper-and-pencil tests, while ushering in a wave of infrastructural, administration, and technology challenges. The new digital tests—designed to measure Common Core Standards—will also bring with them considerably different questions, required student responses, and overall heightened expectations.

The shift to online assessment means better data to fuel both short-term instruction and long-term accountability efforts. How? Because online assessments are designed around the Common Core Standards and can better measure achievement against internationally benchmarked standards for college and career readiness. But another benefit to online assessments are as a pivot point to expand access to technology, to shift to digital instructional materials and tools, and to provide blended learning opportunities for all students.

Administering tests digitally has multiple benefits. Tests can be administered and scored quickly and efficiently. Computerized scoring provides the opportunity for a cost effective method to create better tests beyond multiple choice, including simulations and constructed responses. Getting test results faster improves instruction and expedites rewards and consequences, which can strengthen accountability for learning.

Learning management systems, digital curriculum, and online summative and formative assessments collect real-time data on the progress of each student against learning objectives. Instant feedback for students and personalized analytics for teachers provide the support for continuous improvement and competency-based progress.

States should hold schools and online providers accountable using student learning to evaluate the quality of content or instruction. Providers and programs that are poor performing should have their contracts terminated.

While conversion to digital assessments requires an initial investment, transitioning to a digital system can save money in the long run.

In a nutshell, online assessment offers:

- Richer and more innovative item types;
- Opportunity for more authentic assessment;
- More efficient scoring capabilities;
- Improved test security;
- Greater equity via electronic accommodations;
- Students will know whether they are on track;
- Teachers are empowered by regular results that are available to guide learning and professional development;
- Parents are given timely information about their children’s progress;
• Opportunities to personalize instruction based on more detailed and timely feedback;
• Provide comparable results across schools, districts, and states; and
• Potential cost savings.

In September 2010 two consortia were selected—SMARTER Balanced and PARCC—to work with multiple providers and organizations to build the next generation of tests to measure Common Core Standards. An important element of the program is that the federal funds are supporting state-led efforts, not a federally imposed assessment system. The federal dollars provided crucial start-up funding for states, after which sustainability becomes the state’s responsibility.

The Smarter Balanced assessment system covers the full range of college- and career-ready knowledge and skills in the Common Core Standards. To do this, each test item is associated with assessment targets and overall content claims. Content claims are major categories for looking at student performance. The assessment targets were developed to ensure item writers and reviewers address the standards, learning progressions, and the range of thinking possible. The questions reflect the expectations for rigorous content and application of knowledge contained in the Common Core.

Technology-enhanced items take advantage of computer-based administration to assess a deeper understanding of content and skills than would otherwise be possible with traditional item types. Technology-enhanced items capitalize on technology to collect evidence through a non-traditional response type, such as editing text or drawing an object. Selected-response and technology-enhanced items can be scored automatically.

Constructed-response items prompt students to produce a text or numerical response in order to collect evidence about their knowledge or understanding of a given assessment target.

Performance tasks measure a student’s ability to integrate knowledge and skills across multiple standards—a key component of college and career readiness. Performance tasks are used to better measure capacities such as depth of understanding, research skills, and complex analysis, which cannot be adequately assessed with selected- or constructed-response items.

Similarly, PARCC has developed custom items and tasks aligned to the Common Core State Standards. In regards to the ELA/Literacy assessments, this means PARCC tests include:

Texts worth reading: The assessments use authentic texts worthy of study instead of artificially produced or commissioned passages.

Questions worth answering: Sequences of questions that draw students into deeper encounters with texts (as in an excellent classroom), rather than sets of random questions of varying quality.

In regards to the mathematics assessments, PARCC tests include:

Problems worth doing: Multi-step problems, conceptual questions, applications, and substantial procedures will be common, as in an excellent classroom.

Focus: Instead of randomly sampling a mile-wide array of topics, PARCC assessments have a strong focus where the standards focus. This will reinforce the concept of “going deep” rather than simply “covering topics.”

The new tests reflect deeper learning aspirations of the Common Core Standards and the evolution to digital assessments will harness the potential of technology to construct new ways for students to interact with questions through simulations, game, and digital manipulations that are more engaging. These assessments will offer more detailed and meaningful student data and, with the improved timeliness of results, the data can be used to make instructional modifications by matching student needs to targeted professional development and through the creation of a system that allows for more personalized learning. These tests will also, in most cases, decrease costs while delivering improved test security.
A critical element to creating next generation assessments is the development of innovative assessment items that support implementation of the Common Core Standards, and the shifts in instructional practice that they represent. These next-generation assessments and the evolution of classroom instructional practices must work together as one unstoppable juggernaut. Universal access to high-quality education as a matter of equity, is the greatest social justice issue of our time. Therefore states must not only get ready for the online assessments, they must also modify instruction to prepare students for the demands of the new assessments.

For students, the new online assessments will challenge them to complete complex tasks and apply their knowledge in order to stay on track toward college and career readiness. Parents will feel better knowing their child’s class time is spent on learning rather than testing, so that children have more opportunities to improve. Teachers will get the support they need to help students with assessments that measure what teachers need to know, when they need to know it. And policymakers will feel confident about tests they helped to build that can compare performance and growth against world-class standards.

The online assessments are designed to work with the bare minimum technical specifications needed for the technology to work. It is critical, though, that districts plan not for the minimum, but for what is needed to deliver a high-quality learning experience for students and teachers. Relying on old operating systems and limited computer access also limits teachers’ ability to take advantage of online formative and diagnostic assessments and students’ ability to benefit from personalized and adaptive instruction.

The introduction of tablets in 2010 and the drop in laptop prices make devices for every student affordable. The use of open resources could make it cheaper to provide a tablet than a backpack full of books. Here are other benefits to providing high-access environments:

- The ability to leverage content-embedded assessments (e.g., learning games, simulations);
- Allowing for frequent, free, and easy-to-administer formative and benchmark assessments;
- The power of adaptive instruction (i.e., adaptive assessments linked to units of instruction);
- Encouraging more student writing and more structured feedback;
- The ability to extend the learning day and year, and allow students to learn anywhere, any time;
- Expanding access to great teachers and great learning opportunities;
- Connecting parents and siblings to learning opportunities;
- Making it easier to differentiate instruction;
- Helping students move at their own pace (i.e., competency based);
- Leveraging teacher talent in many ways (e.g., OpportunityCulture.org); and
- Matching testing environments.

By its nature, standardized testing tends to lag behind instruction in the adoption of new technology. But it is virtually assured that readiness for instruction will mean readiness for assessment. In other words, if your school or district plans for high access instructional environments, you will be more than able to handle online assessments.
The time is ripe for digital content and assessment. Technological, social and economic trends are changing the skills needed for citizenship and employment and the power of personal digital and computing devices (and the number of people with daily access to them) are increasing exponentially. This has resulted in an explosive demand for K-12 education learning and assessment tools, reaching levels that will spur even greater investment and innovation.

Online assessments will build a pathway to college and career readiness and help measure student progress in achieving the standards. The results will help to better inform state policy decisions while providing a more accurate picture of student preparedness and giving teachers the timely information they need to inform instruction and support students. Preparing for these assessments will require an unprecedented collaborative effort to align instruction to the Common Core Standards and ensure that schools have the necessary technological infrastructure to support and deliver online testing.

Advice to states and districts as they ready online assessment:
- Match the teaching and testing environments
- Shift to digital instructional materials
- Boost access
- Plan for the greater shift
- Support blends
- Boost broadband
- Invest in teaching training
- Learn from other states
- Use sample items
- Use Core-aligned adaptive assessment

The combination of digital content and digital assessment provides more than sufficient rationale to support an increase in improved access technology. States should have an active dialogue with district leaders about devices, testing windows, and professional development then devise a plan for handling issues such as access and connectivity as they plan for the broader shift personalized, technology-rich learning opportunities.