



Textlab.org

Literacy is a technology. Technology is a literacy.

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Innovation: Textlab Will Accelerate Literacy

Teaching students literacy skills in a digital environment requires better software. We need a laboratory for reading and writing the way college students and professionals read and write: efficiently, collaboratively, and on the Internet. We need a Textlab.

Textlab is a lightweight Learning Management System, or LMS, built specifically for middle and high school literacy instruction. It allows students to practice critical reading and writing skills and to create portfolios of digital work. It also allows instructors to provide targeted, differentiated assignments and materials to students and to offer feedback in a secure online format. It is a platform-independent web application, optimized for desktop, laptop, tablet, and mobile access.

Social, political, and economic power rests in no small part on the ability to share engaging ideas over the Internet. Closing the achievement gap will require bridging the digital divide while improving literacy skills. We can better prepare students for success as thought-workers in the modern economy *and* accelerate their academic achievement by building specialized tools that meet their literacy instruction needs in the classroom.

Middle and high school students are savvy consumers of new media—regardless of their family income. But low-income students frequently experience these tools only in the context of entertainment and not education. The paper-based classroom makes it hard for them to see literacy within the modern digital environment, which is where they will have to continue honing their critical thinking skills throughout their lives. As teacher/researcher Jim Harmon noted in his study of iPads in his English classes, teaching with these digital tools, “[met his learners where they were in ways in which they were already literate.](#)”

Teaching literacy in a digital medium also allows educators to seamlessly offer differentiated texts and practice work on class-specific topics. A single digital classroom can meet each individual student’s learning needs without dividing the teacher’s attention, isolating students and publicly highlighting their differences, and requiring mountains of photocopies.

Research has already demonstrated that bridging the gap between “the traditional print-based literacy focus of most classrooms and the [quotidian electronic lives of many of today’s teenagers](#)” can engage students and help them succeed academically (“Teaching with Blogs: A Case Study of Technologically Mediated Literacy,” Lapadat, et al.). This same

research also suggests that reading students who collaborate, investigate, and share information through digital channels are engaged and successful at mastering the content.

Core Textlab features include:

- Tools for managing digital text at a variety of reading levels
- The ability to assign differentiated text and activities to students according to their current reading levels
- Tools for teachers to provide rapid feedback on student work
- Media management for audio recordings of text and supplemental video materials
- Modules for capturing and storing student work online such as journals, collaborative blogs, digital graphic organizers, selected-response questions, and other formats that correspond to familiar print-based alternatives
- Intuitive functions for submitting digital drawings, photos, and graphics; video and audio responses; and webpages built within the Textlab platform.

Innovation: Engaging Students Through Digital Literacy

Twenty-first century literacy instruction is largely wedded to 19th-century technologies. Our students are daily surrounded by a flood of digital text, yet we often teach them literacy skills with worksheets, composition books, broken pencils, and outdated and low-interest texts.

A variety of entrepreneurs are leveraging digital platforms to reimagine mathematics instruction, among them the wildly successful [Khan Academy](#), along with projects such as [TenMarks.com](#) and [LearnZillion.com](#). Yet we have hardly begun to utilize similar tools for teaching critical literacy skills.

Many of the existing Learning Management Systems are designed for college settings rather than the literacy instruction secondary students need. The open-source LMS [Moodle](#) includes some features that effective literacy teachers need, but takes a kitchen-sink approach and includes tools and modules for everything from Department of Defense-designed training protocols to college science courses. And it is not optimized for the small-screen iPad tablets available in some lucky, low-income schools. It is also not user-friendly or practical for teachers adjusting to the influx of technology into the classroom.

We need a powerful set of tools to accelerate literacy skills for students who are arriving in middle or high school reading two to four years behind grade level. Textlab will enable critical productivity gains for students and teachers to maximize instructional time and outcomes.

Textlab will also help crystalize the utility of using iPads in at-risk settings. There is widespread enthusiasm for adopting iPads in schools, but that excitement often outstrips the attention paid to effective instructional use. Early research already indicates that students working in English classrooms where iPads have been effectively integrated into

the curriculum can emerge from one year of instruction reading and writing more than a full year ahead of their peers in a control group (“[Unlocking Literacy With the iPad](#),” Jim Harmon).

The same study surveyed students with and without access to iPads in their English classes. Only 32 percent of students without access to iPads and digital literacy tools identified “thinking about my future” as a reason for caring about and attending English class. Yet 63 percent of students with iPads and digital literacy tools said they were invested in English class because they were “thinking about my future.” Properly tailored digital tools helped students make a clear connection between their progress as readers and writers and their future prospects.

Leadership Skills: The Textlab Team

Our team has a proven track record of effective teaching and educational technology leadership. We teach and train other educators and command the respect and attention of school and district officials.

Andrew Plemmons Pratt spent two and a half years managing the start-up phase of [ScienceProgress.org](#), a magazine of progressive science and technology policy published by the [Center for American Progress](#). Editing technical jargon into accessible prose and building websites led him to the simple conclusion that working in the current economy requires students to develop their literacy skills in a digital context. He saw successful lawyers, scientists, journalists, and other professionals leverage online communication tools to change the world around them. The young minds in our nation’s schools deserve to wield that same power.

Andrew decided to leave Science Progress in 2010 and take his web development, writing, and editing skills into the classroom through Teach For America. During his first year of teaching, Andrew and colleague Matt McCrea won the first annual Prince George’s County Public Schools / Teach For America Innovation Challenge for their suite of “On-Demand Professional Development” training tools for data-driven instruction ([beta project site; overview](#)).

As a second-year teacher, Andrew is currently piloting a new model for teaching 7th-grade English using a class set of iPads. These provide his students with access to high-interest ebooks, digital graphic novels, and a customized installation of the Moodle LMS that offers online classwork and multimedia tools for accessing aligned texts, audio, and video content. This new experiment in teaching literacy is essentially a year-long research and testing phase for the core Textlab features.

Andrew also serves as the 7th grade academic lead on the leadership team for his school, which is a model turnaround school in Prince George’s County. He co-edits the educational technology blog, EdTech 101, on TFA’s internal social network TFANet.org.

Jordyn Sims is a Silicon Valley, California native who grew up seeing first-hand the power of technology—and its benefits in the classroom. She learned to type in first grade, had computers available throughout her elementary, middle school, and high school career, and found herself above and beyond her peers in terms of computer literacy when she reached college.

Jordyn teaches at a Title I school in Prince George’s County as a second-year Teach For America corps member, where her students have a vastly different experience with technology. Many cannot even type, much less view technology as a tool to be wielded in their educational development. Her students made major gains in their reading levels during her first year of teaching—even without access to significant amounts of technology. The Scholastic Reading Inventory showed that her students made 1.8 years of reading growth on average, and one class grew an average of 2.5 years in reading.

This year, her students are using their iPads to access differentiated lesson materials based on reading ability and their experience with English as a first, second, or third language, and to submit classwork and formative assessments using Google Forms. She also created a class website to host this information and that also serves as an outlet for students and parents to access all of the work done during class, all class forms, and all homework in order to ensure that students are on track for success.

As the only Teach For America teacher at her school, Jordyn integrated herself into the staff community and in her first year started the first student-produced newspaper and literary magazine in the school’s history. She also serves as the Vanguard Reading Teacher on the Transforming Education through Digital Learning council at her school, a program enabling and supporting a one-to-one iPad initiative, provided through Title I funding. Additionally, the Prince George’s County Chairwoman invited her to submit a proposal to present on producing school newspapers and literary magazines at the State of Maryland International Reading Association Council (SoMIRAC) Conference. In September 2011, fellow staff members nominated her for the honor of Riverdale Teacher of the Month.

Jordyn also serves as a Content Team Leader for the TFA DC Region Literacy teachers, supporting other corps members with their literacy instruction.

Transformative Impact and Sustainability for Textlab

Properly implemented, Textlab will help skillful literacy teachers produce measurable gains in their students’ reading and writing skills. Harmon’s research suggesting that well-designed tools for digital literacy can accelerate reading gains by more than a year is just the beginning. Textlab will also accelerate these shifts:

- Measureable gains in reading scores will place students using Textlab effectively at least a year ahead of their peers without access to a Learning Management System.
- Textlab will prepare students for college and careers. By engaging young learners in a digital context for literacy instruction, their education will grow

more connected to the college work and careers for which we say we are training them.

- Students using Textlab will practice and grow their literacy skills while working at their own pace, and in appropriate learning modalities.
- Students will see themselves not merely as consumers, but as creators of digital media.

The first step is to continue the yearlong experiment of integrating iPads and custom Learning Management System tools in Andrew and Jordyn's English classrooms. During the remainder of this school year, we will distill observations, data, and experience into core Textlab features, and will then analyze data on those results to reveal trends hidden from informal observation. Preliminary findings will support school-level professional development for other teachers, and will provide valuable feedback for district implementation of the Title I iPad program.

We will then use that knowledge and data to hire one or more seasoned developers with experience building Content Management Systems to support construction of the Textlab prototype over the summer. Beginning with well-known development frameworks such as Ruby on Rails or Django will set the project on sound footing and allow us to tap into experienced developer communities. Key development work will still be in the hands of team members, who combine computer-programming experience with proven pedagogy.

During summer 2012, we will also recruit a cohort of ELA teachers to integrate Textlab into their classrooms. Beta-testers will likely first be recruited from the TFA DC Region corps, regional charter networks, and the DCPS and PGCPs teaching forces. They will provide feedback in a tight loop that will inform updates to the software on a week-to-week basis throughout the 2012-2013 school year.

During that year, we will open the software to a wider beta testing base, tracking user metrics and connecting them to reading diagnostic scores and summative tests of objective mastery.

Leveraging connections in the DC Region, regional charter networks, and the TFA national team, we will attract a user base of at least 1,000 teachers in the 2012-2013 school year. During the summer of 2013, we will work with a high-performing charter network or school district to integrate Textlab into their existing curricular framework, leveraging existing users to train new teachers in how to utilize the software effectively.

Yet even the best software is useless without appropriate computer hardware. In order to deploy Textlab effectively, classrooms must have one tablet, laptop, or desktop terminal for each student. There are already programs providing one-to-one access to iPads for students in many high-need schools around the DC Region. We will recruit beta-testing teachers at schools that already have access to the appropriate hardware in order to demonstrate the utility of the platform. This will also catalyze grants for tablet or laptop sets to expand the pilot into classrooms that currently lack the technology.



But even the best computer hardware is of limited use without consistent, reliable Internet access. Again, we can leverage existing connections in districts such as Prince George’s County and DC to ensure that pilot classrooms have adequate networking hardware and bandwidth to ensure seamless access.

Resistance to adoption is also a major hurdle for any education technology solution. To prove the power of our platform, we will focus on recruiting beta testers who are both effective instructors and early technology adopters. We can clearly demonstrate Textlab’s power by measuring the productivity gains that successful teachers achieve with the tool.

Idea Development: Next Steps

Textlab is currently emerging from the back-of-a-napkin phase into a focused period of research and planning. The customized LMS implementations Andrew Pratt and Jordyn Sims are already using in their classrooms this year are the testing ground for features that will become the Textlab core.

Unless it receives seed funding, Textlab will most likely remain a side project, which would significantly limit the speed of its production. The funding, recognition—and most importantly—the mentoring and connections that would accompany the Social Innovation Award would be catalytic. It would provide the resources to work with a large cohort of instructors on requirements, hire knowledgeable CMS developers, and begin a rapid cycle of prototype development. Most importantly, it would accelerate literacy skills for thousands of secondary scholars.