



# Introduction

Throughout time, technology has taken on many forms in the classroom. To think, at one time the slate chalkboard was a modern innovation that impacted the classroom along with classroom management. The evolution of the classroom chalkboard draws so many parallels to what I am about to share in this text. Before the chalkboard, students used individual slates, which made instructing the entire class at once impossible for teachers. But

In 1801, the rather obvious solution to the problem made its debut. James Pillans, headmaster and geography teacher at the Old High School in Edinburgh, Scotland, is credited with inventing the first modern blackboard when he hung a large piece of slate on the classroom wall. In America, the first use of a wall-mounted blackboard occurred at West Point in the classroom of instructor George Baron. (Concordia University, n.d., para. 5)

As generations move from one to the next, we must keep in mind our past, while attending to our present, with our eyes on the future. As an educator, we must embrace and understand our past, present, and future so that we can prepare our students for a world that, for many of us in the classroom, is unfamiliar. In my experience as an aspiring screenwriter, an English teacher, an instructional technology specialist, and most recently, a director of technology, I've had the opportunity to not only work in progressive schools, but with progressive leaders and colleagues. These opportunities have provided me with a story to tell about my firsthand experiences integrating technology.

In the following pages, I am going to share my experience in getting a 1:1 iPad initiative off the ground, supporting the initiative, and fostering a shared culture of learning. This book, while primarily for school leaders, covers classroom practice and classroom management, as well as ways to remix and rethink the standard classroom lesson. Anyone involved in education should continue reading; however, those that will gain the most are school leaders looking to develop a plan to integrate new technologies in order to promote and foster 21st century learning.

This book is not a blueprint for developing a 21st century learning environment, but rather a roadmap that presents a course that you can follow, but it also provides plenty of options for diverging from this course. My purpose for writing this book was to share a unique experience that yielded positive results at two schools. Both environments, completely different, share two perspectives on integrating technology, rethinking instructional design, and providing support for students.

Additionally, this book offers primers for district leaders to prepare their district for a large-or small-scale technology initiative. It offers essential steps to get started and provides ideas for sustaining and supporting this initiative. Also, this text provides practical lessons for teachers and technology specialists. If you work in a school that is already working within a technology initiative, this text will offer ideas that you can immediately put into practice. This work is not device agnostic and represents multiple platforms for integration beyond an iPad.

The perspective is from my direct experience in Burlington Public Schools and Groton-Dunstable Regional School District, in Massachusetts. In both districts, I played a key role in planning and launching large-scale technology initiatives. There are also testimonials from district leaders, students, and teachers who I had the pleasure of working with during both initiatives. Their words provide a glimpse of what the day-to-day, 1:1 school looks like. Their experiences reinforce the assertions I present throughout about digital learning and technology integration. Plus, there is limited focus on actual device specifications and more of a focus on planning strategies and teaching ideas. While devices in this context are important, the focus lies more with the philosophy.

Although the hardware and applications continue to evolve and move at a swift pace, the focus remains—and should always remain—on the learning objectives. In my experience teaching in the secondary classroom, as an instructional technology specialist and as a director of technology, I've always made technology secondary to what I was teaching. Additionally, technology, whether it was hardware or an application, provided access to a wealth of opportunities that I was eager to integrate into my classroom. Challenging students to think, be creative, and explore different pathways of inquiry is just as essential as turning a device on.

In the past ten years the physical K–12 classroom has changed dramatically. While some will argue that someone from 1900 could walk into a contemporary classroom and relate to what is happening, the modern classroom has changed. But how? How is a room that places an autocratic figure at the front of the room, desks in line in the middle, and students all facing in one direction any different? The simple answer is technology.

The fact that the global economy relies on technology daily is one of the many pieces of evidence I will provide for why technology has a place in the classroom. In education, we can no longer look at technology as a “Computer Class,” but a

literacy that must be threaded throughout the fabric of a school. Today's job demands not only a diverse skill set in technology, but also an employee who can adapt to a myriad of environments. Some of the best companies in the world are employing this type of person right now. In a recent piece in the *New York Times*, Thomas Friedman asked Laszlo Bock, the senior vice president of people operations for Google, what they look for in a candidate:

“There are five hiring attributes we have across the company,” explained Bock. “If it’s a technical role, we assess your coding ability, and half the roles in the company are technical roles. For every job, though, the No. 1 thing we look for is general cognitive ability, and it’s not I.Q. It’s learning ability. It’s the ability to process on the fly. It’s the ability to pull together disparate bits of information. We assess that using structured behavioral interviews that we validate to make sure they’re predictive.” (Friedman, 2014)

This is not to say that the goal of every teacher and school is to get their students to someday work for Google, but rather, provide them with challenges in the classroom that elicit a variety of skill sets. And, technology provides that opportunity.

While technology in the classroom is still a new concept, it’s one that will never sit still. Many will argue that education technology is simply a fad or a phase. And, while there is some merit in this statement, it’s now the job of the school administration team to consistently provide the best, new technology to support students and teachers. In short, technology needs to be treated as if it were oxygen: necessary, invisible, and ubiquitous (Lehmann, 2009). While this book focuses on my experience with a large-scale 1:1 iPad initiative, it’s not simply about technology—it’s about creating a healthy, challenging learning environment for the 21st century student.

While I could spend days answering questions (many are answered in the following pages) about the impact of technology integration, there is one important question that every school must keep in mind: “Why are we doing this?” This should drive the initial discussion and lead to developing a sustainable plan that ultimately comes down to providing the best access, the best resources, and the best learning opportunities for all students.