

# School–Level Strategic Technology Leadership in K–12 Education



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## INTRODUCTION

The effort to embed technology via increasingly complex digital instructional formats is one of the most important factors in promoting successful strategic educational leadership practices (Greaves, Hayes, Wilson, Gielniak, & Peterson, 2010). This represents a shift from traditional school leaders who typically outsource technology issues to other staff members or implement basic technology operations that fails to ensure high quality student learning within technological frameworks. Many school leaders are limited in how they use technology to promote effective strategic planning, implementation and achievement of outcomes. School leaders must be committed to the systemic integration of technology into schools and to sustaining the use of digital technologies in data management, analysis and decision making. This requires a systems thinking approach relative to making the integration of technology a seamless part of all strategic leadership planning, implementation and monitoring. School leaders must be able to develop a school vision that includes systemic technologies to provide support for the increasingly diverse students in public schools (Slenning, 2000). This chapter will present a discussion on the importance of future school leaders acquiring the knowledge and skills to use technology and digital tools to implement strategic planning. These skills include gaining an understanding of how to use technology to maximize its impact on educational change efforts, intervention programs, student achievement and the efficient use of resources. In addition, future school leaders must also understand the importance of role modeling to support all students and teachers in the process of embedding technology into the school culture.

As schools move forward, there is a new form of “digital divide” that must be recognized. This is the divide between schools being led by school-level technology leaders and those which are not being led by school-level technology leaders. The term “technology-driven school leader” refers primarily to a school leader who understands how technology must be used as a foundational tenet from which the school operates, develops and succeeds in providing high quality instructional environments. Although it is certainly helpful for school leaders to be power-users relative to the personal use of technologies, it is more important that school leaders operate from a technology framework such as the National Educational Technology Standards for Administrators published by the International Society for Technology in Education (ISTE NETS-A, 2009). These Standards are:

- Visionary leadership (with technology)
- Digital-age learning culture
- Excellence in professional practice
- Systemic improvement (with technology)
- Digital citizenship

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The NETS-A provide school leaders a series of mental processes via the Standards themselves, as well as indicators, which can be used to gain an understanding of how well the Standards are being implemented within a school. These Standards are essential for school leaders today for several reasons. First, due to the extremely high number of technologies being used by teachers and students today, it is easy to not have a valid or reliable way of assessing why technologies are being used or a way of determining the impact of these technologies within a classroom or school. Using these Standards as a guide, school leaders may have a way to categorize and assess the current uses of technologies within a school based on which Standards the school is working towards, which of the Standards are not being addressed, and which Standards not being adequately addressed.

The second reason that these Standards are essential for school-level technology leaders is school leaders must consider all aspects of a school, including students, achievement, teachers, infrastructure and support. The Standards provide balance, depth and breadth for the total picture of the school. This allows school leaders to use a 360 degree perspective towards technology integration and hopefully refrain from focusing on small initiatives or losing sight of the school's vision.

## **BACKGROUND**

### **Strategic Technology Leadership in Education**

One of the most significant areas of need in K-12 education is for school leaders to become active technology leaders. The increasing accountability pressure for all students to meet high standards in public school districts is requiring school leaders to be well-prepared to transform schools and to improve instruction, as well as managing buildings and budgets. A Wallace Foundation Report (2012) has identified that many principals and assistant principals are not receiving enough training to be effective instructional technology leaders of their schools. Many university educational leadership programs have failed to keep pace with the evolving roles of principals. Some of the common deficits are a lack of content that considers the needs of diverse students and weak connections between strategic leadership theory and practice (Wallace Foundation, 2008). Other common flaws include faculty with limited experience as school leaders, internships that are poorly designed and insufficiently connected to the rest of the curriculum, and a lack of opportunities to experience real leadership (p. 4).

Luneburg (2010) states that school-level leaders typically carry out four basic leadership functions:

1. Planning;
2. Organizing;
3. Leading; and
4. Monitoring (p. 1).

Planning is considered to be a prerequisite to the other leadership functions relative to determining direction, goals and objectives, identifying and organizing the people and tasks to be carried out, the creation of action plans to be guided, implemented and supported by the leader, and how the achievement of goals and objectives will be monitored and assessed. (Goodstein, 2011; McDonnell, 2011). These four basic leadership functions represent the traditional strategic planning model that continues to be taught in many university school leadership preparation programs.

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