Foreword

A common bit of wisdom shared broadly across the Internet (which has been attributed to many different sources) proposes, “Technology will not replace teachers, but teachers who use technologies well will replace those who do not.” I agree. Technologies have an incredibly important role to play in education, and the pressure is on for educators to deliver students who are capable and who will be successful in a dynamic, challenging, demanding future. That’s not going to happen without modern technologies in the capable hands of well-prepared teachers and students.

Unfortunately, the pairing of teachers and technologies doesn’t result in a magical transformation that delivers this power. Only when teachers understand, reflect on, and “grow into” the new opportunities that technologies offer can they acquire the knowledge, skills, and perspectives that allow the technologies to make teachers stronger, more effective, better informed, and better connected to their students and parents. Think of it as an equation in which a teacher’s pedagogical skills (PS), interpersonal skills (IPS), and their educational technology skills and knowledge (ETSK) are all multiplied together to produce teaching effectiveness (TE), something like this…

PS x IPS x ETSK = TE

While we can be sure that that equation is oversimplified (there are likely to be more variables, and they are not all of equal power) it points out that if any of these values is low, it can pull down the overall result. Technologies can’t make weak teachers strong, but they can enhance the performance of solid teachers, making them teachers that students will never forget.

Teacher preparation institutions have a series of crucial roles to play in this developmental process. Teacher educators accept an immense responsibility to produce teachers who will serve their students, their communities, and their nation. The importance of this mission and the perceived gap between expectations and students performance has led to a stream of calls for reform of teacher education. Considering ways to make teacher preparation more effective, it will be wise to consider the advice contained in this book, the contents of which span 32 different institutions in four nations.

Section one, Frameworks for Technology Integration, offers advice on integrating technology, pedagogy, and content knowledge; offers design strategies to consider when building technology-rich teacher education programs; and advocates using technology and the principles of Universal Design for Learning (UDL) to prepare teachers to meet the needs of exceptional learners.

The second section, Integration of Web 2.0 Tools into Teacher Education Programs, offers a framework for developing pre-service teachers’ capabilities in designing Web 2.0 learning experiences; counsel on the use of Web 2.0 visualization tools to stimulate generative learning; and advice on the
use of social networking and Web 2.0 tools to supplement learning management systems and to prepare school technology leaders.

Section three goes deeper, providing a series of discussions ranging from broad discussions of the integration of technology into teacher education courses and modeling effective technology use in teacher preparation programs, to focused discussions on the use of social networking, e-portfolios, creating content-centric learning environments, productivity software, and student choice. A case study of the transformation from a course originally designed to prepare teachers to use Microsoft Office to one that teaches and is based in Web 2.0 tools offers an opportunity to reflect on how one might move from what is to what might be.

In the fourth section, Technology Integration Across the Content Areas, content area specific chapters propose effective uses of technologies in preparing teachers of early childhood education, writing, mathematics, science, social studies, and physical education, and conceptual chapters cause reflection on the key questions related to technology integration in the content areas and how hybrid classrooms might be implemented.

Technology-Rich Clinical and Student Teaching Experiences, the fifth section, offers two different perspectives on the use technologies in the remote observation of teachers, insights into the use of digital video to promote reflection in the preparation of teachers, and an opportunity to consider the similarities and differences between preparing teachers to effectively teach in face-to-face and in online school settings.

The final section, Supporting Faculty in Technology-Rich Teacher Education Programs, helps us consider different ways to mentor higher education faculty as they learn to integrate technologies in their courses and shares lessons learned during the implementation of a technology-focused professional learning community designed to be a “safe and effective space for scaffolding instructors less familiar with online learning technologies and tools.”

This book offers professional teacher educators a rare opportunity to harvest the thinking of pioneering colleagues spanning dozens of universities, and to benefit from the creativity, scholarship, hard work, and reflection that led them to the models they describe. Teacher educators are, indeed, fortunate to have this opportunity to make informed decisions that will transform teacher education at this important moment in the history of education.

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