

## **Preparing Educational Leaders to Harness the Power of Advanced Technologies: An Introduction**

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This special theme issue of the *Journal of Research on Leadership Education* includes manuscripts from educational leadership preparation programs across the United States that examine specific uses of advanced technologies to advance candidates' acquisition of knowledge, skills, and dispositions needed by future leaders. Our request for manuscripts began with the whole-cloth call for "advanced technology" use in leadership development programs. However, we quickly asserted specific elements that should accompany each manuscript. The following are our original guiding principles for authors:

1. Describe a technology you use to advance the teaching and learning of future school leaders;
2. Provide a procedural explanation of how this can be done in various contexts and what is needed (e.g., set of tools in regard to hardware, software, and personal professional development), and
3. Provide a vivid account – or example – of what this looks like in practice.

We choose JRLE as our venue for two reasons. First, JRLE targets those who teach and conduct scholarship in the area of preparing school leaders. Second, as a University Council for Educational Administration (UCEA) journal, JRLE is well positioned to have an impact on teachers of leaders. Finally, we wanted to publish in an on-line journal in order to provide a robust set of hotlinks to the resources and sample artifacts from each manuscript.

In order for candidates to connect educational leadership theories to the knowledge, skills, and dispositions identified by national standards for school and district leaders, instructors must connect course content with field-based or real-world experiences. We believe advanced learning technologies serve as one methodology for providing candidates with the opportunity to demonstrate performances expected of future educational leaders.

As we began to solicit manuscripts, we realized that in addition to faculty voices, the voices of students needed to be included. We hope the readers observe that many of the articles in this issue are co-authored by current candidates in leadership programs. This purposeful activation of the student voice is further illustrated in this introduction. We tapped two current students – Ryan, a student in a principal preparation program, and Molly, an instructional technologist who is a doctoral candidate, to offer their perspectives on why technology-savvy leaders are needed in schools. Each offers their own unique perspective.

***Ryan: “Wanted: Tech Teachers Walking the Talk!”***

Teachers, young and old, will fail to reap the benefits of technology infused lessons if they remain detached from the technological norms ingrained in students. This new generation of learners utilizes technology in profoundly different ways than even the most recent college graduates. These kids were born into a world in which YouTube, Google, and Facebook are household terms. Students boldly embrace technology with a creative curiosity while their apprehensive teachers are often frozen at the first blinking light. Focused professional development will help to close the technological divide between students and teachers, but for most this is not enough.

As districts have poured money into technology initiatives many educators have responded enthusiastically, yet for every digital whiteboard used effectively there are two collecting dust. Principals and superintendents, having purchased the accompanying training, are left scratching their heads. The problem is not the technology, but the brief, one size fits all model of professional development offered to educators when they receive a new tool. The one-day seminar approach asks teachers to learn through glossed-over instruction that would be unacceptable in their own classrooms. Consistent coaching is the answer. Teachers need real-time feedback to temper the frustrations of learning a new skill. Furthermore, content specific coaching or peer mentoring will not only ensure that teachers are using the technology, but that the new tools truly enhance classroom instruction.

Teachers dubbed “tech savvy” by their colleagues enjoy applying technological innovations or have simply made a concerted effort to learn and develop the new norms of technology. These teachers know how to troubleshoot, refresh a web-browser, and navigate the inconsistencies of a wireless world. Teachers today can no longer use technology at school and embrace neo-luddism at home. Teaching twenty-first century skills doesn’t require owning an iPhone, Blackberry, or Kindle, but it helps. Teachers need to practice what they teach because students are immune to their teacher’s technological fears and have become increasingly disdainful of the slow, pedantic web-surfers such fears have created. The connection between curriculum and technology can be water tight, but if a teacher becomes uncomfortable or frustrated, student disengagement will soon follow. Teachers should be encouraged to embrace technology wholeheartedly. Bank online, shop online, send a text, and write a blog. The rise of cyber bullying and its devastating impact on thousands makes technological savvy among teachers and administrators in K-12 schools increasingly important. Blocking social networking sites and rejecting their influence will not equip students to face

today's realities. Instead, the misuse of technology ought to be a clarion call for educators to model its appropriate use. A school leader can play an instrumental role in the response to this important, if not necessary, call.

***Molly: "How Educational Leadership Faculty Can Do Their Part?"***

Despite the continuing debate regarding the effectiveness of educational technology's impact on student achievement, we find ourselves in a world where the presence of technology in the P-12 environment is no longer an option. At the least, technologies for communication and data collection are mandatory components in a district's overall plan for communication with state and local partners. Increasingly, both classroom and library educational technology hardware and software choices are multiplying at an exponential rate. Of course, funding the hardware and software necessary for district level data collection, communication, library services and classroom use are expensive ventures to embark upon. Educational leaders are put in the position of having to understand the long-term ramifications of choosing one technology over another in terms of budget and the implementation timeline as well as potential impact on student learning. Here are some ways that faculty can prepare educational leaders to be fully equipped upon graduation to meet these challenges head-on.

*Faculty need to know about the National Educational Technology Standards for Administrators (NETS –A).* The International Society for Technology in Education unveiled the first set of technology standards for administrators in 2002, acknowledging that without the support and approval of our educational leaders, technology use in school districts would never get off the ground. Educational leaders who are well versed in the potential that technology can lend to student learning as well as the level of communication amongst all of the partners in a successful school-community collaboration. The most recent performance indicators for administrators were published in 2009 and include six categories: visionary leadership, digital-age learning, excellence in professional practice, systemic improvement, and digital citizenship. Faculty members who familiarize their students with ISTE's organization help put them in contact with others around the world who are mobilizing technology resources to increase the students' learning. In addition to the standards for administrators, ISTE's organization has connections to affiliate organizations in almost every state, a yearly international conference, and special events tailored to the information needs of P-12 administrators.

*Faculty need to be able to teach future school leaders that good technology integration takes many different forms.* One of the current theories of effective educational technology adoption comes from Punya Mishra and Mathew Koehler at Michigan State University (Mishra & Koehler, 2006) . The concept is called TPACK and stands for technological pedagogical content knowledge. This concept addresses the fact that any individual teacher's technology use in the classroom will be unique to that situation because the content, the teaching style, and the students' prior knowledge and learning styles will all dictate what the final outcome looks like in the classroom. Choosing and incorporating technology into classroom teaching is dependent upon what you teach,

who you teach, and how you teach. There are no formulas or models of technology adoption that will work the same for every group of teachers and students, even if they are in the same grade and are learning the same content. Technology, in order to be effective, must be integrated organically into each particular situation. This idea is in direct opposition to current paradigms of technology purchasing and implementation within districts (for example, installing an electronic whiteboard in every classroom). While there are some teachers and classrooms that may greatly benefit from the electronic whiteboard, it may not be applicable to others and will most likely never be utilized to the fullest extent. Faculty members who teach aspiring educational leaders can help them to understand that technology integration can look very different between two second grade classrooms that sit side by side, yet be very effective in both.

*Faculty need to be able to model technology use as part of all facets of their professional practice.* The most important way to show how technology can change practice is to model it daily; in methods of communication, through different instructional practices, and with the expectations of the student generated products. Faculty who are willing to teach hybrid or online courses, and to use classroom technologies such as electronic whiteboards and student response systems are demonstrating that the use of technology can be a valuable tool in the effort to increase student retention and learning. When faculty members use the technology organically within the courses and programs they teach, they are demonstrating that the performance indicators proposed by ISTE for educational leaders are not just words on the page, they are suggestions for practice that can help make the educational technology leadership in your institution/district shine.

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The traditional grammar of schooling harbored certain structures, organizational features, teaching practices, and learning behaviors (see Tyack & Cuban, 1995). Recent technological advances have challenged, if not penetrated, this grammar. Accessibility, flexibility, interactivity, efficiency and liberation are all compelling reasons to use technology. However, without a well-articulated framework for teaching and learning and without a clear understanding for the need for profession and personal capacity needs, technology will continue to be an overpromised, unfulfilled distraction. It would be wise to understand the forces that have rendered so many previous educational innovations impotent.

It is our hope that the contributions in this volume will serve as a basis to understand the questions that arise when educational leadership faculty members contemplate the use of technology: (a) The philosophical question (why), (b) the procedural question (how), (c) the feasibility (capacity), and (d) the demonstration question (show me). Change is a personal endeavor. The call for faculty to use technology in wise, interactive, and compelling ways will not happen by magic or by heavy-handed mandates. Perhaps this set of articles will provide the motivation and the

means for educational leadership faculty to take risks, to change their grammar of teaching.

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