How Superintendents Use Technology to Engage Stakeholders

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Abstract	Article Info
The job of the modern superintendent involves engaging with a variety of stakeholders in meaningful, yet impactful ways. The current study was designed to understand how superintendents leverage technology to engage school level stakeholders (principals, teachers, and students) through technology generally, and about technology integration specifically. Data were collected from interviews with 14 superintendents across the United States. Three themes emerged: collaborating and communicating with stakeholders was vital for stakeholder engagement; providing relevant and timely professional development opportunities for stakeholders was a key lever for stakeholder engagement; and it was essential to nurture a technology-infused learning culture for all stakeholders across the district.	

Introduction

As a significant lever of organizational culture, the superintendent is at a powerful point of influence. Building trust, fostering organizational culture, and empowering stakeholders across the school district, requires that the modern superintendent engage with a variety of stakeholders in meaningful, yet impactful ways (Freire & Fernandes, 2016). Several studies have demonstrated that superintendents play an integral role in the success of schools within their district (see Bredeson & Kose, 2007; Kowalski, McCord, Peterson, Young, & Ellerson, 2011; Schechter, 2011; Waters & Marzano, 2007; Zepeda, 2013). For example, results from a meta-analysis indicate that effective superintendents can even have positive impacts on student achievement (Waters & Marzano, 2007). It is likely that superintendents are influential because they are uniquely positioned to engage with individuals across the entire school system.

Many scholars have noted the importance of engaging with an array of educational stakeholders. For example, Maxfield, Flumerfelt, and Feun (2009) found that school administrators empowered their teachers by fostering a collegial and communicative culture, providing administrative support, and setting clear goals and expectations. Additionally, through an extensive multidisciplinary literature review, Lee and Nie (2014) noted seven empowering behaviors of school leaders that included: "1) delegation of authority; (2) providing intellectual stimulation; (3) giving acknowledgment and recognition; (4) articulating a vision; (5) fostering collaborative relationships; (6) providing individualized concern and support; [and] (7) providing role modeling" (pp. 18-19). Thus, school leaders

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play an important role in empowering others *and* they do that by engaging with stakeholders.

Superintendents of public schools in the United States benefit in many ways when they engage with stakeholders. Poynton, Kirkland, and Makela (2018) noted that when K-12 educational leaders engage with stakeholders, they act in ways that "pull people together, generate innovative solutions, strengthen buy-in, and build trust" (p. 266). Through a study focused on intentionally fostering ways for superintendents to meaningfully engage with stakeholders, Poynton, Kirkland, and Makela concluded that "school superintendents can increase stakeholder trust, build capacity for public participation, and narrow the engagement gap in district affairs" by thoughtfully engaging with stakeholders (p. 265). In contrast, other researchers have found that disengaged stakeholders can become antagonistic toward the school district and hinder innovation and progress (Auerbach, 2007; Coleman & Gotze, 2001).

Schein (1992) argued that schools, as learning organizations, are built "on the assumption that communication and information are central to organizational well-being and [leaders] must therefore create a multichannel communication system that allows everyone to connect to everyone else'' (p. 370). These channels of communication, along with these disparate connections, are core to the work of superintendents when it comes to engaging with stakeholders. Additionally, since the 1980s, there has been increased evidence that communication is a vital skill for school administrators (e.g., Björk, Browne-Ferrigno, & Kowalski, 2018; Carter & Cunningham, 1997; Gousha & Mannan, 1991). Björk, Browne-Ferrigno, and Kowalski (2018) noted that "contemporary superintendents' work must focus on developing...expanded communication networks" (p. 180).

Researchers have also found that how superintendents communicate with stakeholders can influence school culture (Barton & Dereshiwsky, 2009; Hilliard & Newsome, 2013; Morgan & Petersen, 2002). Superintendents must also be valiant advocates of social-justice oriented reforms, and as such, they must "influence, engage, organize, and compel a variety of stakeholders" (DeMatthews, Izquierdo, & Knight, 2017, p. 23).

Kowalski (2005) laid out how the role of the school superintendent has morphed over the past century and a half. In *Evolution of the School Superintendent as Communicator*, Kowalski detailed how the conceptualization of this district leadership role has transformed over time from a teacher of teachers, to a manager, to a statesman, and to the current notion of being "superintendent as applied social scientist" (p. 104). This current conceptualization, as described by Kowalski, is highly impacted by today's information-based social environment. In this technology suffused social environment, and in line with the work of Richardson and Sterrett (2018), it is evident that modern digital technologies allow superintendents to embrace dialogue differently. As a result, superintendents must engage with a broader range of stakeholders.

Statement of the Problem

The *Professional Standards for Educational Leaders* (National Policy Board for Educational Administration, 2015) explicitly notes the importance of both engaging with stakeholders and using digital technologies efficiently. Standards 8 and 9 make explicit reference to the notion that school leaders should meaningfully engage with families and communities. Standards 4 and 9 describe how school leaders should employ digital technologies to improve teaching, learning, and leading. Nevertheless, researchers have just begun to

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look at how superintendents engage with stakeholders using modern digital tools. For example, Hurst (2017) looked at how superintendents used Twitter as a platform to engage with stakeholders about issues of politics. Nevertheless, in our search of the literature, other than Hurst's dissertation, no research was located that focuses on how superintendents' practices that engage principals, teachers, or students with technology or about technology.

Richardson, Sauers, and McLeod (2015) found that technology leadership at the district level is "just good leadership" (p. 11). These researchers found that effective superintendents are essentially good communicators who demonstrate technology acumen by being collaborative, being risk-takers, being a continuous learner, and having a clear vision of teaching and learning. Each of these skills are all in service of the others and each of these skills are driven and supported by modern digital tools. Given this backdrop, we developed the current study to understand how superintendents leverage technology to engage school level stakeholders being principals, teachers, and students through technology generally, and about technology integration specifically. This study further builds on our comparative analysis of technology savvy superintendents (Richardson & Sterrett, 2018) and change ready district leadership (Sterrett & Richardson, 2019).

Methodology

The purpose of this study was to understand how those at the top (i.e., superintendents) engage various school-level stakeholder groups through and with technology. In this study, the researchers took a qualitative, phenomenological approach to investigate this topic. This methodology was appropriate given that our goal was to

"illuminate and better understand in depth the rich lives of human beings and the world in which we live" (Jones, Torres, & Arminio, 2006, p. 2). A phenomenological lens was useful given the need to examine the meaning of individuals' lived experiences with this topic (Rossman & Rallis, 2003).

Population

Superintendents in this study were each an awardee of the *eSchoolNews Technology Savvy Superintendent of the Year Award.* *eSchoolNews* is a newspaper that is distributed in print and digital form. It is read by over 300,000 school leaders across the United States. The *Technology Savvy Superintendent Award* began 2001 to highlight district leaders who have stepped up to meet the demands of a digital society. After being nominated by their peers, *eSchoolNews* (2014) applies the following criteria to determine annual award winners. The award winners must be a superintendent who: regularly models the effective use of technology; ensures that technology resources are equitably distributed among students and staff; leads, develops, and implements a districtwide technology plan; articulates an understanding of the role of technology to all school district stakeholders; ensures the integration of technology integration for teaching and learning; streamline school district business operations through technology; demonstrates curiosity in considering emerging technologies; and thinks strategically about the long-term challenges and opportunities of technology in their school district (*eSchoolNews*, 2014).

The population for this study was limited to those award winners from 2011-2014 where 2014 is the last year this award was given. We used this timeframe because 2010 is commonly thought of as about the time social media outlets such as Twitter gained
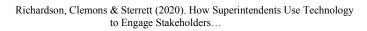
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worldwide popularity (Interactive Schools, 2018). As such, the award winners prior to social media likely engaged with stakeholders through and about technology differently. Hence, we wanted to understand how superintendents engage stakeholders using the modern digital tools that would be germane to today's superintendents. Within that timeframe, thirty-seven superintendents were recognized as technology-savvy superintendents. We attempted to locate contact details of each awardee using email addresses found on district websites and well as on social media. We found contact information for 32 awardees. We reached out to each of these superintendents on three occasions. Fourteen superintendents agreed to participate in the study, yielding a participation rate of 44% of award winners with publicly available contact details. Table 1 details the demographics of the participants in the study. Given that these superintendents are public figures, and in line with our university approved IRB consent procedure, each agreed to having their real names published.

Table 1.

Population of the 2011-2014 Technology-Savvy Award Study Participants

Award Year	Name	Gender	Age	Exp.	Years as Supt.	District	Enrollment*	District Type*
2011	Jim Cain	Male	68	47	14	Klein Independent School District, TX	48,253	Suburb: Large
2012	Dan Frazier	Male	58	36	19	Sioux Central Community School District, Sioux Rapids, IA	514	Rural: Remote
2012	Michele Hancock	Female	61	30+	3.5	Kenosha Unified School District, Kenosha, WI	22,602	Suburb: Midsize
2012	C.J. Huff	Male	46	20	7	Joplin Schools, Joplin, MO	7,784	City: Small
2012	Jerri Kemble	Female	55	30+	6	Centre School District,	404	Rural: Remote

					Lost Springs, KS		
2012	Bradford Saron	Male	41	16	9	Cashton Public Schools, Cashton, WI	563	Rural: Distant
2012	Todd Yohey	Male	52	28	12	Oak Hills Local School District, Cincinnati, OH	7,948	Suburban: Large
2013	Theresa Dunkin	Female	55	35	8	Aptakisic-Tripp Community Consolidated School District 102, Buffalo Grove, IL	2,090	Suburb: Large
2013	Randy Moczygemba	Male	54	30	8.5	New Braunfels Independent School District, New Braunfels, TX	8,299	City: Small
2013	David Tebo	Male	41	16	9	Hamilton Community Schools, Hamilton, MI	2,632	Rural: Fringe
2014	Luvelle Brown	Male	40	20	5.5	Ithaca City School District, Ithaca, NY	5,337	City: Small
2014	Dallas Dance	Male	35	16	4	Baltimore County Public Schools, Baltimore, MD	108,191	Suburb: Large
2014	Karen Rue	Female	62	37	11	Northwest Independent School District, Fort Worth, TX	18,950	City: Large
2014	George Welsh	Male	52	29	18	Center Consolidated School District, Center, CO	657	Rural: Remote

Note. Table from Richardson & Sterrett (2018)

*Data for Enrollment and District Type retrieved from Institute of Education Sciences in the Common Core of Data (www.nces.ed.gov)

Data Collection

To gain a deeper understanding of how technology-savvy district leaders engage various stakeholders, we chose semi-structured telephone interviews as the data collection method. We used interviews to better understand the participants' unique perspectives in their respective context (Kvale, 1996) as well as to understand better the superintendents' unique perspectives and experiences (see Check & Schutt, 2012) related to stakeholder engagement. Through 45-minute, one-on-one, semi-structured telephone interviews, the researchers were able to collect data about how modern technology-savvy superintendents engage others with, through, and about digital technologies. The interview protocol covered various issues including challenges of being a digital leader; technology integration efforts; advice for other superintendents; professional development around technology leadership; stakeholder engagement; and the use of digital tools to engage others.

Data Analysis

The transcripts were coded using a typological analysis as detailed by Hatch (2002). To do this, we first identified typologies being the distinct stakeholder groups (i.e., students, teachers, and principals). Each researcher coded all transcripts individually. Both researchers then compared the coding collaboratively to identify areas of agreement and disagreement across all transcripts until 100% agreement was reached. We then used inductive coding to determine patterns and relationships of engagement across those typologies. After determining the themes, the researchers selected supporting data excerpts that captured those themes.

Richardson, Clemons & Sterrett (2020). How Superintendents Use Technology
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Limitations

A limitation of this study is that the superintendents interviewed came from a defined group of award-winning district leaders. The *eSchoolNews* award is a result of a nomination process. It is possible that those awarded were not in fact the most deserving of the award, but ones that were perceived as being technology-savvy and demonstrated some measures of success. Additionally, these superintendents are not representative of the entire population of U.S. superintendents. These superintendents were comfortable with technology and were thus more likely to use those tools to engage with others.

Results

Three themes emerged as to how these district leaders went about meaningfully engaging with three specific stakeholder groups (i.e., principals, teachers, and students): (1) collaborating and communicating with stakeholders; (2) providing relevant and timely professional development opportunities for stakeholders; and (3) nurturing a technology-infused learning culture across the district for all stakeholders. These themes are discussed below.

Collaboration and Communication is Vital for Stakeholder Engagement

The superintendents in the study discussed how they placed a value on collaborating and communicating with principals, teachers, and students. These technology-savvy superintendents engaged with principals by working with them through technology initiatives and communicating with them every step of the way. With teachers, these award-winning superintendents understood that technology

integration might be stressful, so they listened, provided support, and ensured that the use of technology aligned with the vision of the schools. These district leaders took a hands-on approach with students and engaged them by giving students voice and choice throughout the technology adoption process.

Principals. Five superintendents indicated that encouraging and supporting collaborations in their schools helped them engage their principals for digital change. Fostering collaboration for principals included supporting their work with community members, parents, and teachers. For example, Michelle shared that in her schools, "people work together to think about ways of meeting success." In addition to fostering a collaborative culture within schools, Randy indicated that he fosters collaborations between schools in the district and schools in nearby districts. He stated, "we're very fortunate that we have a couple other school districts very close to us. We send staff there. They send staff here. Our technology directors communicate all the time." Thus, when implementing technology-oriented innovations within their district, it was useful for these superintendents to cross-pollinate ideas by engaging school leaders within and across their district borders.

Teresa and Jerri indicated that district staff, including themselves, are essential in building a collaborative culture around digital innovations. Teresa stated, "I really try to work with my district office staff to understand how to build those collaborative structures and then make sure that we're clear on where we're going…Then I really support the hell out of our principals." Thus, fostering collaborative structures seem to allow these executive leaders opportunities to engage with principals and allow the vision and goals of the district to drive digital innovations.

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Five participants noted that communication was an essential component to support collaborative structures that encouraged the meaningful work of their principals. Karen shared, "Someone told me years ago, how to make change happen. There are three ways to do it. You talk to, you talk to, and you talk to again." Thus, keeping the line of communication open with principals and staff created a collaborative culture that facilitated digital innovation.

While Karen emphasized the importance of communication in general, Jerri and Luvelle noted the importance of informal conversations that can spur technology-infused innovation. Jerri shared that having informal conversations with the principals "tend to propel people forward." She explained that these informal conversations include encouraging principals to use social media, to connect the superintendent to what their school is doing, and to praise the principal for what they take on. Luvelle also trumpeted the importance of informal conversation. He shared,

> *I'm able to have conversations with folks. I say, 'I think you should be using this' or 'Please work on this.' Nothing formal as far as a documentation where I'm holding people accountable, but just watching it, modeling it, and then having a conversation.*

Thus, from Jerri's and Luvelle's perspective, informal conversations are critical for engaging their principals to become more technology-savvy themselves.

Karen shared that the content of what is discussed is vital when engaging with principals. She stated, "When you talk about the things that you want to see repeated, and you don't talk about the things you don't want to see repeated, you get more of what you talk about than you do what you don't talk about." Thus, what is discussed with principals influences their behaviors. The medium through which

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these conversations are occurring can also be important, according to Dallas. He shared that digital technology helped him have conversations and connect with his principals on a regular basis. Having conversations through technology such as social media and email was a way to model technology's use in a practical application.

Teachers. The superintendents in the study noted how their role was also to communicate and collaborate with teachers about digital learning initiatives. For example, Jerri said, "The thing that gets in the way the most is adult discomfort. Many adults are very uncomfortable with technology and so they want to push it aside." She went on to say that teachers "want to negate it and say things like screen time is bad for students. We shouldn't be doing this. I think it's from a place of fear and not knowing." Jerri went on to say,

> *The hardest thing is to get those adults to understand that this is the world we live in. No one is going back to the way it used to be. If we're going to prepare kids effectively, we must move forward with them. We don't have to know all the answers. We must be willing to learn and to model that learning.*

For these superintendents, this was done through regular and ongoing communication. In support, Luvelle noted that "There are educators and administrators who aren't comfortable with the tools, refuse to use the tools. . . or are just uncomfortable. Luvelle went on to say that "It's my job to inspire them. That gets tiring because people are looking to me to be that person who often inspire folks who are stuck to move."

Students. Eight superintendents indicated that they actively engaged their students by giving them opportunities to have their voices heard. To do this, most of these technology-savvy superintendents indicated giving voice to their students by communicating and directly interacting with them. For example,

David, Dallas, Jerri, Luvelle, and Randy discussed how they made themselves available to students, asked questions, and listened to them. When David was asked how he ensured technology was used to enhance learning, he stated simply that "We talk to kids."

Many of the participants highlighted the importance of keeping open communication channels with students. For example, Dallas discussed that the best professional development he received was by "focusing or spending time with students." Further, he shared,

> *I recognize in this job that if I want to get things done, of course, I have to get things done through others. But I have to get things done mostly through students. So often superintendents set these goals, and they believe these goals can get accomplished without talking and involving kids. There is no way you can make that happen.*

Hence, talking to students and involving students in the goals of the school, was not only fundamental to engaging with students about the use new digital tools, but it also was also crucial for accomplishing organizational goals around integrating technology into teaching and learning.

George and Karen discussed involving students in molding their school's goals as well as involving them in community and national activities. George reported that his schools brought a team of six kids to attend an annual state conference in order to "learn with the school board about what's looking forward in education." Additionally, Karen noted that her students participated in a technology expo; being a student conference for the community. Here, students presented their work to the community. She explained the importance of this by described how "That type of thing honors the work and makes it important. It gives it validity, and it gives it an audience."

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One way that these superintendents reported engaging with and giving voice to their students was by collecting data through surveys and interviews. Luvelle shared that his district surveyed students annually to monitor how technology was being used. He went on to say that,

> *We asked students technology-related questions. For example, how often are you working in the digital space? How often do you publish online? Some of those numbers have been very encouraging to show that our young people are working in this way, using these digital tools. We hope those numbers continue to go up year after year.*

Similarly, Randy stated, "I personally interview students at the end of every school year and ask about what their thoughts were about the implementation and the changes." Thus, the feedback provided through these mechanisms seemed to provide useful data for the schools in order to further hone the schools' goals.

Jerri shared that having students facilitate adult learning led to some powerful changes. Jerri shared that "It became this great 'ah-ha' moment for me. Number one, I didn't have to know all the answers about the technology to be the educator. The kids were doing the work, and they were doing meaningful work." Jerri went on to detail that, "I was so impressed by this little team of students that we started going out all over the state. I don't know how many hundreds of teachers we trained." Furthermore, Jeri shared "These kids led teachers on how they saw, from a kid's perspective, how to integrate technology." Jerri explained that she was allowing students to "do something that was meaningful to them."

Another way of communicating with students, and likewise giving students voice, was by allowing them to have a say in what they are learning. Dallas shared that in his schools, students are asked

what they would like to learn about with regards to technology. Doing so, teachers and school leaders found out that students wanted to learn how to create a safe, digital footprint. Further, Dallas shared that in response to the students' requests,

> *We created this webpage called Growing Up Digitally…It's all the information created in one place for our students, for our parents, in terms of what we're doing with student data, what are some lessons around growing up digital, and some resources for parents to use for their kids at home. But kids can go there to get examples of how not using technology in a responsible way can have an impact later on.*

Similarly, Jerri reported that by making herself available to kids and listening to them, a student sometimes come to her with ideas about learning. She explained,

> *I would sit in the common area with my iPad, kind of catching up on things. Kids would come over. What evolved out of this was I had a group of third and fourth grade kids that came to me and said, 'We have ideas for this iPad.' I said, 'Really?' 'Yes, we have some things we want to do. Would you let us take the iPad home?' I said, 'Tell me what it is you're going to do with it. What is your idea?'*

The technology-savvy superintendents in this study often engaged with their students by making themselves available to students and by following through with students' suggestions. Brad highlighted this importance further by stating,

> *One of the trends that we see in education is a notion that when students have voice, choice, and agency in their learning, their commitment goes up. This means their attendance increases and negative behaviors decrease. It's more meaningful to them, so their engagement increases. If their engagement increases, then their understanding of those concepts increases. So, their attainment levels increase. I don't think that you can separate out voice, choice,*

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and agency in a personalization type of a horizon and technology. You can't do it without the integration of technology.

Allowing students' voices to be heard, along with collaborating with them, gives meaning to their work while empowering them to do more with the digital tools afforded to them.

Professional Development is a Lever for Stakeholder Engagement

These technology-savvy award-winning superintendents spoke of engaging with principals and teachers through professional development. By taking an instructional leadership approach to leading and learning around technology initiatives, these superintendents provided ongoing support that met the needs of the stakeholders. These district leaders noted now professional development needed to be collaborative and individualized and be in service of improving student learning.

Principals. Ten of the superintendents indicated that professional development was essential for engaging with school principals around technology innovations. The types of professional development most discussed focused on coaching around technology-enhanced project-based learning. These district leaders also spoke about the importance of providing professional development around instructional leadership activities, such as mentoring and instructional walkthroughs to support technology in the classroom.

Providing consistent professional development was essential for these leaders. CJ noted that "All of our building principals have received the same training that a lot of the teachers did." He explained that this allowed for transparency and consistency throughout the school. Having embedded professional development

for principals was discussed by Jim who shared that "When you have continuing staff development, it just makes all the difference in the world." He continued that "We offer staff development all the time. We've got night classes. We have Saturday classes. We have summer classes. We have a technology staff development center. It is just outstanding. We just keep that going. That's the key."

In addition to having consistent, continuous, and relevant professional development that includes principals, for these district leaders, specific types of professional developed seemed to work best. Michelle shared that she required her principals to go to institutes instead of conferences because institutes "allowed my administrators to be involved and take a critical look at their own leadership practices. I would agree to pay for institutes especially if the focus was project-based learning." She explained that "Project-based learning institutes provided scenarios, examination of their situations, and they had to present and share their learning with others nationally." Thus, this type of professional development provided principals with practice in solving real problems and ways to positively impact their schools when infusing digital tools into the processes of teaching and learning.

In addition to project-based learning, professional development on instructional leadership for principals was important. Luvelle shared that, "with administrators, I'm also having them read a lot of leadership books and technology-related books so they can get a better thirty-thousand-foot view of what it should look like and how to lead it."

Providing professional development on how to conduct walkthroughs was mentioned to engage the district's principals. Walkthroughs are a technique that school leaders can use to quickly

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monitor instructional activities and provide feedback, especially when it comes to technology-enhanced learning activities. In discussing how he engaged with his principals, Luvelle shared that it is important for principals to "walk through their classrooms and recognize good and mediocre technology implementations." Similarly, CJ stated,

We had professional development that was all about the look-for with technology integration. As they were doing their building walkthroughs, we are giving them a system, the training that they needed through which they could go out and observe and know what they are observing and measure what they were observing in a way that provided them feedback on the progress of their staff, which was really important. Your principals need to know your teachers and they need to know where every teacher is in terms of technology integration. Training our principals on what to look for related to that was a critical part of our work.

CJ also shared that his school district hired instructional coaches to work in the schools. These people provided principals with guidance to "not only monitor, but help, guide, support, and model technology integration in the classroom."

In addition to instruction coaches providing modeling, Jerri and Michelle indicated that superintendents and other district leaders should provide similar support themselves. Jerri said, "Sometimes I like to push a little and say, 'We need to model a little more. How can we model this? How can we model it for our staff so that we're always in front of them with the vision?'"

Teachers. Professional development around technology was a way to engage teachers as well as to make their work with technology initiatives more meaningful. As such, ten participants underscored the importance of professional development for teachers. Superintendents in this study listed peer-led professional

development as a form of collaborative professional development for teachers. Six of the participants indicated that this type of professional development was critical for fostering learning around digital initiatives. CJ, Michelle, and George shared that peer-led professional development was perhaps the best form of teacher professional development. CJ shared,

> *I think the best PD is the opportunity to observe other teachers who are doing the work and learning from one another in the collaboration that comes from that and the sharing of resources, and lesson planning together, and those types of things. I think our teachers would agree that the best PD is when you get a number of smart people in the room together and start having conversations about what each other is doing and learning from one another.*

Likewise, Michelle stated, "having teachers teach other teachers is probably the strongest methodology you could use in the school." While George stated, "whether it's technology or anything, the best way teachers grow professionally is by learning from each other."

Todd likewise shared how "We like to provide opportunities for classroom teachers to learn from other classroom teachers about how they were using technology to enhance learning." Additionally, David reported that for the teachers in his schools who have expertise in a certain area, "We have freed them up to do some side-by-side coaching, to go in and support, watch the teachers, and give them some feedback." Similarly, Teresa shared that it is important to identify "Some of those early adopters who already implement the desired practices to assist in that peer-to-peer, shoulder-to-shoulder learning." George explained that when he sees technology being used well, "I want that staff member to share it out with the rest of the staff and empower them to coach the rest of the staff in using it." Thus, these technology-savvy superintendents seemed to view peer-led professional development as a vital way to engage teachers across the

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district. There seems to be a unique power in teachers learning from their peers. According to these district leaders, teachers learning from their peers seemed to ignite the learning process and empower teachers to utilize technology.

CJ, Jim, and Jerri emphasized the importance of individualized professional development when it comes to classroom technology integration. CJ stated that "It needs to be individualized because you have teachers that are all over the place in terms of their skill sets related to technology integration. You have to be respectful of that." Further, CJ shared that "It needs to be very customized to the individual teacher and not a shotgun approach to technology integration training." Since teachers have different learning needs when it comes to technology. Jim stated, "Depending upon what they already know, some of the teachers have to start with the very basics. Pull it out of the box and turn it on." Jerri and CJ both noted that having technology specialists/instructional coaches within the schools is an excellent way to ensure that individualized professional development occurs. By having these specialists and coaches on hand, it allowed for professional development to occur in a one-on-one setting. It also allows for teachers to get help, guidance, and support at the time its requested and needed.

Students. The superintendents in this study made links to how professional development of leaders and teachers ultimately impacted students. Brad discussed how professional development exposes teachers and leaders "to people that are using technology to assist in helping kids just do awesome things." Dallas talked about how the best professional development for technology is simply spending time with students. This applies to superintendents as well. "When I visit schools, very rarely do I spend time with the principal

because I see the principal from a whole different vantage point. I sit down with kids, I sit down with them in the cafeteria, hearing how their experiences were going." This practice gives students voice and allows them opportunities to engage with leaders who listen to their needs and who have the power to change things. Dan talked about how his district focused on professional development that is intendent to ultimately impact student learning experiences. For example, Dan discussed adopting an observational protocol called the *4-Shifts Protocol* from that was later turned into an instructional book by McLeod and Graber (2019). This tool centers on higher order thinking, student agency, authentic work, and technology integration. Karen noted that professional development in her district is driven by the reality that students need to be empowered and engaged to be lifelong learners given the constant evolution of digital technologies.

Nurturing a Technology-Infused Learning Culture through Stakeholder Engagement

The importance of creating a cultural paradigm shift around technology was not lots on these district leaders. Participants discussed how building leaders were the lynchpin to creating a digital learning environment. Thus, engaging them around the district vision for technology integration was vital. These district leaders expressed a deep commitment to engaging with teachers, so they understand the big picture for technology integration before getting them to adopt digital tools. These superintendents also understood that students were instrumental in this cultural shift.

Principals. Four participants indicated that emphasizing the importance of technology for principals was critical. Jim shared that principals need to "understand the importance of technology and

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leadership in that regard. They've got to step up because if they drop the ball, that campus is going to be down in that regard." As leaders of schools, Jim believes principals must know the importance of technology.

Jeri noted the importance of understanding the pragmatic impact that technology can have on principals. She stated that "if we show them that technology helps us work smarter not harder, they like that because they're very busy people." Thus, to gain buy-in, it was vital to get principals to understand how technology will ultimately benefit them.

Stressing the importance of technology use for their students and their teachers was also noted by these superintendents. David indicated that he engaged with principals to help them understand what technology "can do for our kids and our teachers." Luvelle underscored the importance of principals knowing how technology can impact learning. He described engaging his principals by being purposeful in how he introduces technology to them. He shared that he primarily emphasizes teaching and learning, and secondarily incorporates and introduces technology, which positively impacts principal buy in. He stated,

> Our folks are much more comfortable with the conversation starting there and then talking about how tools can enhance it. I think our purposeful start has got folks comfortable with what we wanted them to be comfortable with, and now we're pushing them to think differently using the tools.

Therefore, by emphasizing the purpose of technology and keeping that purpose in line with the goals of teaching and learning for the district, these district leaders were able to engage with principals around a culture of technology integration.

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Teachers. Four technology-savvy superintendents in the study reported that it was imperative that teachers understand the importance of technology for themselves and their students. David shared, "our teachers are just working their tails off." He described the difficulty of encouraging the use of technology while also not putting more burden on teachers. David explained that although this is difficult, it helps when teachers understand that technology ultimately streamlines their workload. Similarly, Michelle stated, "When you invest in teachers being trained and taught to use this stuff in positive ways to make their life easier, then they get on-board quicker." Thus, having teachers understand how technology benefits them helps empower them to build a technology-infused culture.

These superintendents also indicated that teachers should know about the importance of technology for their students. For example, Luvelle explained that having access to technology is critical for students' learning. He stated, "I'm able to speak to the sense of urgency around why these tools should be in the hands of young people, but also give very specific examples of how they will transform cultures and transform learning experiences." It was also noted that teachers must understand the importance of technology for students in today's technology enriched society. David shared, "It's about changing the way we teach and learning together with kids using the most current and powerful resources at our disposal. It really is a mindset thing, not a device thing." Karen discussed how technology helps prepare students for their future. She stated, "We are educators and, if we're smart, which we are, then we use the environment of today to do our best to prepare our kids for tomorrow."

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Students. The superintendents in this study reported that their students are active participants in nurturing a technology-enhanced learning culture. For example, Teresa stated, "There's a place for blended and direct instruction. I think we acknowledge students will work beyond expected limits when they're engaged in projects that are meaningful and have that personal relevance." To better engage with students, superintendents reported listening to students and allowing their voices to be heard (i.e., communicating with them) and allowing them to be central to the cultural shift in the school. Dallas detailed that "I have many students who follow me on social media. I have many students who get videos or messages from me that really encourages them and pushes them to do better."

Discussion

The current study aimed to illuminate how technology-savvy district leaders engage with principals, teachers, and students. Understanding how superintendents, who have demonstrated expertise around digital innovations, work with stakeholders in their districts, adds to the limited body of research that intersects these three topics (i.e., digital innovation, district leadership, and stakeholder engagement). Themes that emerged from the analysis centered on supporting collaboration and communication, focusing on relevant and timely professional development, and fostering a digital learning culture.

Collaboration and communication allowed these superintendents to engage stakeholders across their district. Kowalski et al. (2011) observed that over 75% of superintendents in their study noted that community involvement was "either a *major* or *minor asset*" (p. 137). To ensure a culture of collaboration exists within the

district, superintendents should lead by example and engage stakeholders through open communication and active listening. Social media also allows for greater connection and engagement within and outside the school district as also discussed by Sack-Min (2017).

These district leaders supported professional development through resource allocation and strategic action taken to realize organizational change around technology. Brown and Militello (2016) observed that school leaders are "commonly named as the most important influence on teachers and their practices" (p. 703). From strengthening mentoring, to ensuring that staff development is perceived as relevant and timely, these technology-savvy superintendents started with a vision for teaching and learning and supported that vision through relevant and meaningful professional development. This practice aligns with the work of Kraft and Papay (2014) who found strong evidence that teacher effectiveness was impacted by supportive professional development environments. The literature body similarly reflects that professional development is a vital lever of engagement, and a strategic investment, given that most of a school budget is allocated to human resources (Glickman, Gordon, & Ross-Gordon, 2010).

Today's district leaders must shift from ensuring that infrastructure is adequate and secure, to instead ensuring that students have the skills to succeed in a rapidly changing world (Richardson & Sterrett, 2018; Ullman, 2017). Digital Promise (2015) observed the importance of bridging technology and instruction together in a form of "change management" (para. 8). The technology-savvy superintendents in this study focused on culture

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building across stakeholder groups in a way that is supported by literature body (see for example Hoy & Miskel, 2012).

Effective superintendents understand that engagement is key to change management. Engagement, however, has morphed and continues to morph in today's digitally suffused world. By commanding the use of technology and shifting away from one-way communication and toward multidirectional engagement, the technology savvy superintendents in this study provide us with various practices and examples of the resultant impacts. Nonetheless, with those practices come pitfalls. For example, transparency vis-à-vis communicating on social media, opens leaders up to critique and pushback. Superintendents who engage in this kind of communication must learn to embrace that reality without holding onto potential negativity.

This study has implication on both practicing as well as pre-service district leaders. Technology allows for engagement with stakeholders to be dialogic and thus collaborative. Pre-service preparation programs must demonstrate and model to aspiring district leaders how to leverage the power of digital technologies seamlessly into their day to day job. As such, educational leadership professors need to become more technology savvy themselves. In-service superintendents need mentoring around how to provide relevant and timely professional development opportunities to a variety of stakeholders through and about technology. This learning often comes on the job and through informal outlets. Twitter chats are a useful resource to achieve this end. By participating in chats such as #edchat, #ISTEchat, or #satchat, school leaders can interact with peers around common issues including technology focused professional development. Finally, culture is key to organizational health; effective

superintendents know this. Superintendents must nurture a technology-infused learning culture across the district. This means that today's superintendent must be a lifelong learner. Fostering this disposition either through preservice or in-service training is essential.

Future Research

Future research could focus on how superintendents from similar demographics (e.g., urban or rural) engage with stakeholders. Taking a comparative lens with this future research would be valuable. Future research could focus on how superintendents balance digital tools for engagement with other forums for stakeholder engagement. In the current study, we also used only phone interviews to gather data. We did not conduct site visits or gather additional stakeholder data. Future researchers could collect multiple sources of data to ascertain a more robust picture of engagement.

In the current study, we examined a limited time frame of award recipients in this study. Looking at a select number of schools over a longer time frame would be a fruitful line of inquiry. We are uncertain how the acts of stakeholder engagement were viewed by the stakeholders given that data were only collected from superintendents. Future research might include a broader pool of interviewees to understand how superintendent engagement impacts students, teachers, and principals. Finally, this research focused on three specific stakeholder groups. Looking at how superintendents use technology to engage with families would be a logical next step and would align with previous research (Wood & Bauman, 2017).

Conclusion

The practice of school leadership is not just relegated to the role of the superintendent, principal, or the teacher leader. Rather, it entails a collaborative effort comprised of all three groups that benefits the *student*. Insights from these technology-savvy superintendents provide direction for how district leaders can use technology to engage all school level stakeholders. Preparation programs and district partners can learn from how these district leaders navigate leadership that is in service of engaging stakeholders in technology-suffused school improvement efforts. As Maak (2007) noted, a leader's relational interactions are a "precondition for both the emergence and the quality of social capital" (p. 334). Social capital is needed for any organizational changes; like those brought on by technological innovations. This social capital can only be fostered through stakeholder engagement.

While recent studies have examined the role of the *principal* to lead technology rich schools (Schrum & Levin, 2013; Sterrett & Richardson, 2019), there remains a lack of literature on district-level leadership with few exceptions (see Dexter, Richardson, & Nash, 2016; Richardson & Sterrett, 2018). Nevertheless, superintendents serve as a catalyst for helping others understand, share, and own a district vision for teaching and learning through and with technology. Engaging with principals and teachers in a way that does not burden them and engaging with students to actively embrace technology-driven learning, builds trust (see Poynton, Kirkland, & Makela, 2018), and helps make everyone's work more meaningful. As such, the way superintendents are prepared, hired, supported, evaluated, and promoted should be anchored in their capacity to

engage, in meaningful and impactful ways, with principals, teachers, and students.

References

Auerbach, S. (2007). Visioning parent engagement in schools. *Journal of School Leadership*, *17*, 699–734.

Barton, C., & Dereshiwsky, M. I. (2009). Identity crisis: A leader's image is worth a thousand words. *International Journal of Educational Leadership Preparation, 4*(3), 1-13.

Björk, L. G., Browne-Ferrigno, T., & Kowalski, T. J. (2018). Superintendent roles as CEO and team leader. R*esearch in Educational Administration & Leadership, 3*(2), 179-205.

Bredeson, P., & Kose, B. (2007). Responding to the education reform agenda: A study of school superintendents' instructional leadership. *Education Policy Analysis Archives*, *15*(5). doi.org/10.14507/epaa.v15n5.2007

Brown, C., & Militello, M. (2016). Principal's perceptions of effective professional development in schools. *Journal of Educational Administration*, *54*(6), 703-726. doi.org.liblink.uncw.edu/10.1108/JEA-09-2014-0109

Check, J., & Schutt, R. K. (2012). *Research methods in education.* Thousand Oaks, CA: Sage.

Coleman, S., & Gotze, J. (2001). *Bowling together: Online public engagement in policy deliberation*. London, UK: Hansard Society.

DeMatthews, D., Izquierdo, E., & Knight, D. S. (2017). Righting past wrongs: A superintendent's social justice leadership for dual language education along the U.S.-Mexico border. *Education Policy Analysis Archives, 25*(1), 1-32.

Dexter, S**.,** Richardson, J. W., & Nash, J. (2016). Leadership for technology use, integration, and innovation: A review of the empirical research and implications for leadership preparation. In M. D. Young & G. M. Crow (Eds), *Handbook of research on the education of school leaders* (pp. 202-228), New York, NY: Routledge.

Digital Promise. (2015). *How school administrators' roles change in the digital age.* Retrieved from http://digitalpromise.org/2015/07/16/how-school-administrators-roles-change-in-the-digital-age/

eSchoolNews. (2014), *Nominate your tech-savvy superintendent.* Retrieved from http://www.eschoolnews.com/resources-4-2/superintendents-center/tssa/nominate/

Freire, C., & Fernandes, A. (2016). Search for trustful leadership in secondary schools: Is empowerment the solution? *Educational Management Administration & Leadership, 44*(6), 892–916. doi.org/10.1177/1741143215578447

Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2010). *Supervision and instructional leadership: A developmental approach* (8th ed.). Boston, MA: Allyn & Bacon.

Hatch, J. A. (2002). *Doing qualitative research in educational settings.* Albany, NY: State University Press.

Hilliard, A. T., & Newsome, E. (2013). Effective communication and creating professional learning communities is a valuable practice for superintendents. *Contemporary Issues in Education Research, 6*(3), 353-363

Hoy, W. K., & Miskel, C. G. (2012). *Educational administration: Theory, research, and practice* (9th ed.). New York, NY: McGraw-Hill.

Hurst, T. M. (2017). The discursive construction of superintendent statesmanship on Twitter. *Education Policy Analysis Archives, 25*(9), 1-37.

R E A L

Interactive Schools (2018, September 20). *The evolution of Twitter since the dawn of the first tweet*. Retrieved from: https://blog.interactiveschools.com/blog/the-evolution-of-twitter

Jones, S. R., Torres, V., & Arminio, J. (2006). *Negotiating the complexities of qualitative research in higher education*. New York, NY: Routledge.

Kowalski, T. J. (2005). Evolution of the school superintendent as communicator. *Communication Education, 54*(2), 101-117.

Kowalski, T. J., McCord, R. S., Petersen, G. J., Young, I. P., & Ellerson, N. M. (2011).

The American school superintendent: 2010 decennial study. Arlington, VA: American

Association of School Administrators.

Kraft, M., & Papay, J. (2014). Can professional environments in schools promote teacher development? Explaining heterogeneity in returns to teaching experience. *Educational Evaluation and Policy Analysis, 36*(4), 476-500.

Lee, A. N., & Nie, Y. (2014). Understanding teacher empowerment: Teachers' perceptions of principal's and immediate supervisor's empowering behaviours, psychological empowerment and work-related outcomes. *Teaching and Teacher Education, 41*(1), 67-70. doi.org/10.1016/j.tate.2014.03.006

Maak, T. (2007). Responsible leadership, stakeholder engagement, and the emergence of social capital. *Journal of Business Ethics, 74*, 329-343.

Maxfield, R., Flumerfelt, S., & Feun, L. (Winter 2009). The empowering principal: Leadership behaviors needed by effective principals as identified by emerging leaders and principals. *The International Journal of Teacher Leadership, 2*(2), 1-12.

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McLeod, S., & Graber, J. (2019). *Harnessing technology for deeper learning.* Bloomington, IN: Solution Tree.

Morgan, C. L., & Petersen, G. J. (2002). The role of the district superintendent in leading academically successful school districts. In B. S. Cooper & L. D. Fusarelli (Eds.), *The promises and perils facing today's school superintendent* (pp. 175-196). Lanham, MD: Scarecrow Education.

National Policy Board for Educational Administration (2015). *Professional Standards for Educational Leaders.* Reston, VA: Author.

Poynton, J., Kirkland, R., & Makela, C. (2018). Superintendents building public trust and engagement in five public school communities. *School Community Journal, 28*(2), 265-295.

Richardson, J. W., Sauers, N., & McLeod, S. (2015). Technology leadership is just GOOD leadership: Dispositions of tech-savvy superintendents. *AASA Journal of Scholarship & Practice, 12*(1), 11-30.

Richardson, J. W., & Sterrett, W. L. (2018). District technology leadership then and now: A comparative study of district technology leadership from 2001-2014. *Educational Administration Quarterly, 54*(4), 589-616. doi: 10.1177/0013161X18769046

Rossman, G. B., & Rallis, S. F. (2003). *Learning in the field: An introduction to qualitative research* (2nd ed.). Thousand Oaks, CA: Sage.

Sack-Min, J. (2017) Social media helps educators build professional learning communities. *The Education Digest, 82*(6), 25-29.

Schechter, C. (2011). Collective learning from success as perceived by school superintendents. *Journal of School Leadership, 21*(3), 478–509. doi.org/10.1177/105268461102100307

Schein, E. H. (1996). Culture: The missing concept in organization studies. *Administrative Science Quarterly, 41*(2), 229-240.

Schrum, L., & Levin, B. B. (2013), Leadership for twenty-first-century schools and

student achievement: Lessons learned from three exemplary cases. *International Journal of Leadership in Education: Theory and Practice, 16*(4), 379-398.

Sterrett, W., & Richardson, J. W. (2019). The change-ready leadership of technology-savvy superintendents. *Journal of Educational Administration, 57*(3), 227-242. doi: 10.1108/JEA-09-2018-0160

Waters, J. T., & Marzano. R. J. (2007). The primacy of superintendent leadership. *School Administrator, 64*(3), 322-326.

Wood, L., & Bauman, E. (2017). *How family, school, and community engagement can improve student achievement and influence school reform: Literature review.* Washington DC: American Institute for Research.

Zepeda, S. J. (2013). *The principal as instructional leader: A handbook for supervisors*. New York, NY: Routledge.

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