Seven Keys to Unlocking School Transformation with Digital Media

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A Need and an Opportunity.

District leaders participating in the CoSN Leading Edge Cadre are among those who are taking bold and innovative steps to make transformative use of digital media.

A growing number of school districts across the country are engaged in serious efforts to transform the learning environment of the classroom. Driving these efforts is the dramatic impact digital media is making on how we work, play and socialize. Forward-thinking education leaders realize that schools need to keep pace with a changing world. At the same time, these leaders also recognize the power of digital media to engage students in learning that is relevant to them in the classroom and beyond. Thus, the interest in transforming how teaching and learning occur in our schools is a response to both a need and an opportunity.

District leaders participating in the CoSN Leading Edge Cadre are among those who are taking bold and innovative steps to make transformative use of digital media. The following seven key points on school transformation represent the concerted thinking of key district leaders in this cadre. Their insights could help their peers in other districts make progress with their own efforts to transform learning.

Key Point One:

Transforming learning in our schools requires changing the culture of the classroom.

Digital media can be used in ways that are compatible with any approach to teaching and learning, from the traditional to the innovative. Incorporating digital media with existing practices and processes of the classroom may have incremental value—but it will not, in and of itself, transform teaching and learning. For schools to take a leap forward in using digital media in innovative ways for learning, they need to direct their efforts toward changing the school culture as it impacts the learning environment.

A school's culture consists of the traditions, beliefs, policies and practices of teachers, administrators, students and staff members. Transforming school culture entails promoting new ways for teachers and students to interact, changing the conception of what constitutes an effective learning

environment, and adopting new rules, policies and practices for the conduct of teaching and learning. Schools that are changing the culture of the learning environment to reflect the instructional opportunities made possible with digital media are fostering what can be called a connected learning culture.

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The Connected Learning Infographic is a pictorial representation of a transformed conception of the classroom learning environment that embodies best practice use of digital media.

For additional information on this point, see Douglas Reeves' article, "How do you change school culture?"

Changing the Culture in Action

- Westfield Washington Schools in Indiana implemented robust professional development and training programs to change the school culture for its digital conversion. The district created a completely digital environment, with a digital curriculum for students and project-based learning instruction for faculty members. In full-day and before- and after-school training sessions, faculty members learned how to develop a Web 2.0 toolbox, foster digital citizenship, and use digital tools such as Dropbox, among other practical strategies.
- Mooresville Graded School District in North Carolina has significantly changed its school culture to promote more collaboration and project- or inquiry-based approaches. Through a 1:1 digital conversion, teachers are engaging students in a more student-centered learning environment from more traditional, teacher-centered classrooms. This instructional shift, coupled with digital tools and resources, are helping Mooresville improve student achievement and prepare students to succeed in college and careers.

Key Point Two:

Students, parents, school staff at all levels, and other community members need to be actively involved in developing, supporting and maintaining a transformed learning culture.

Creating a transformed learning culture is a process that must involve all levels of school staff and deliberate outreach to the community—a "bottom up" and "top down" approach. District administrators must be committed to the vision so that they can make their critical leadership contribution in achieving the cultural change. They also must be committed and ready to make changes in policies and procedures that turn the vision into a reality. This process involves teachers, principals and other school staff as co-creators in achieving a transformed learning culture.

School leaders should not assume that parents and community members will understand and support changes unless their questions and concerns are addressed.

Involved School Communities in Action

- Trussville City Schools in Alabama crafted a new vision of teaching and learning by building consensus of teachers and school and district administrators.
- Fairfax County Public Schools (FCPS) in Virginia recognizes the importance of involving students—not just as objects of the transformation, but also as active participants in making changes to school culture. Students have a solid understanding about how they learn best. They have valuable ideas about the role that digital media can and should play in their learning. FCPS established a student advisory council that gives students a voice on a range of school issues, including the planning and implementation of technology initiatives. This student group has played a vital role in many district-wide initiatives, including Bring Your Own Device (BYOD), mobile applications for students and the offering of online courses.

Community outreach is essential for transforming school culture. Schools that move away from traditional ways of teaching and learning are likely to raise concerns of parents and community members. School leaders should not assume that parents and community members will understand and support changes unless their questions and concerns are addressed.

Effective Outreach in Action

- Before implementing a 1:1 program in schools, administrators in Manor Independent School District in Texas used a range of communication strategies to reach out to parents and community. There were parent meetings explaining what was going to happen, how it was going it impact their children and what would be expected of students. When the program was first approved, letters went home to all parents letting them know this was coming. The district posted updates on the district website and added a link to FAQs. Now that the program is up and running, 1:1 campuses keep the communication channels open by including success stories in their weekly news blasts to parents.
- Students can be excellent spokespersons with parents and community members about the positive role that digital media is playing in their lives as learners. Inver Grove Heights Community Schools in Minnesota holds a "Student Led Technology Conference" every year. Teachers, students, administrators and technology team members

design and lead the conference sessions. Participants rotate through four sessions, held in the Media Center and computer labs, with students and/or teachers demonstrating how they are using devices or other resources for instruction. These sessions enable parents and community members to experience technology in action and interact with students to find out about their capability with digital media for learning.

Any effort to make substantial changes in the learning culture of schools is not likely to succeed without a high level of parent and community endorsement and support. Parents and community members can be effective advocates for technology initiatives—but only if they are informed of the plans and the expected learning benefits. Communication should occur at the inception of new initiatives, at the kick-off of the program and throughout the process to get the support from parents and the community.

Key Point Three:

District policies must be aligned to support innovation and transformation.

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CoSN's guide for developing Acceptable Use Policies to Enable Digital Learning can assist districts in rethinking and revising policies for Internet use in the classroom.

It is inevitable that innovative practices will challenge existing district policies. Indeed, if some existing district policies are not in conflict with different approaches, there is good reason to believe that transformation is not occurring. Transformative changes require district policies to support new and innovative practices and enable them to flourish. Of course, district administrators have an obligation to comply with federal and state laws and policies regulating the use of the Internet in schools and affecting curriculum. But districts also need to be responsive to concerns expressed by teachers about rules and regulations that constrain their ability to use digital media efficiently and effectively.

Digital media policies should empower teachers and schools to efficiently use media in the classroom. In some school districts, all instructional content used with students must go through a committee review process. In today's world, where breaking news can be up on YouTube and many other sites in a matter of minutes, such policies limit educators' ability to capitalize on teachable moments. Understanding the immense presence and increasing relevance of technological tools for teaching, districts need to structure policies that allow ready access to digital media if they want to cultivate innovative instructional practices in the classroom.

School districts also are recognizing that they need to adjust their policies for the technology approval process.

Districts are beginning to realize that there are mismatches between policies and possibilities. Policies pertaining to students' use of mobile devices, for example, have changed considerably in the past couple of years. Only a few years ago, most schools prohibited the use of smartphones. However, recognizing that these devices are ubiquitous, schools are turning them into an asset for learning in the classroom—and revising their policies accordingly—to allow for their instructional use during the school day.

School districts also are recognizing that they need to adjust their policies for the technology approval process. In the recent past, some districts required all software requests to go through review at a central level. The advent of mobile devices, and downloadable or cloud-based "apps," has prompted some districts to rethink their policies. Their aim is to give schools more latitude in permitting student use of applications, particularly those that do not store student data or require student accounts, either with teacher authorization or with a very quick turnaround for approval.

In addition to aligning policies, districts need to align *practices* with a philosophy that welcomes innovation. Ensuring that teachers and other school staff are rewarded, rather than punished, for experimenting and coming up with innovative ways to ignite learning is an important dimension in this regard.

Key Point Four:

School districts that are committed to providing the best learning practices using digital media should accept the challenge of "going to scale" rather than limiting support to individual teachers and classrooms.

Scaling innovation from individual classrooms or school campuses to entire districts continues to be a considerable challenge. School districts that commit to going to scale understand that *every* student in *every* classroom deserves the best learning experience the district can provide.

Scaling Up in Action

- The State College School Area School District in Pennsylvania has resisted the temptation to go after niche grant money that would support technology implementations for only some teachers, and only

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Dr. Chris Dede, Timothy E. Wirth Professor in Learning Technologies at Harvard's Graduate School of Education, has produced two documents that are helpful in thinking about and dealing with the "going to scale" issue.

for a limited time. Instead, the district is focusing on slower, more methodical capacity building, using sustainable district resources. As a result, technology implementations tend to be district-wide, mainstream efforts that affect all students. The district follows a compelling philosophy: "If it is good for one group of students, then it is good for all students." The district does not invest time and money on technology that has no "scaling capability." Rather, it supports initiatives that are scalable and have long-term sustainability. Over time, teachers and administrators have learned that any digital media initiatives undertaken will be fully supported and widely implemented.

Key Point Five:

Job-embedded and sustained professional development is critical to build the capacity of teachers and administrators to use digital media to support learning.

Quality professional development is crucial for transformation to occur across entire districts, rather than as isolated pockets of success. Faculty and administrators need time and training to acquire new skills and strategies, practice new techniques, and reflect on effectiveness and needed redesign. On-site professional development, graduate courses and cohorts of learning communities that allow choice, personalization, and flexible teaching and learning opportunities are critical. In an ongoing professional development system, with clear professional development objectives, faculty members can rely on one another for support and continuing professional growth.

The traditional approach to professional development is proving inadequate for transforming learning. Training sessions held before or after school—typically with sporadic focus—are not conducive to meaningful and relevant learning. Far too often the disparaging comments of teachers reflect the inadequacies of the professional development experiences, not teachers' lack of professional commitment.

Instead, by rethinking time, space and resources, schools are making time in their schedules for faculty to meet consistently during the school day or week—and creating innovative ways to deliver professional development.

Teachers also need opportunities to experience instructional approaches with digital media to gain a deeper understanding of how new approaches support teaching and learning.

Time for Professional Learning and Collaboration in Action

- Trussville City Schools offers a comprehensive and interactive professional development program that includes professional learning communities. All schools in the district schedule professional learning during the school day, with different arrangements at the elementary, middle and high schools:
    - The two elementary schools release their students early every Monday so teachers can engage in weekly, two-hour professional development sessions.
    - The middle school schedule builds in time for all core teachers to meet in grade-level teams during the day for one 45-minute period, while elective classes meet every day at the beginning of school for 30 minutes. The middle school also provides a network of clubs to students, offered by elective teachers and community volunteers, so that all grade-level teachers have an additional hour of professional development every month.
    - Students at the high school have a delayed arrival every Thursday to enable professional learning from 7:45 until 9:20 a.m.

    In all Trussville City schools, teacher leaders lead the learning communities with assistance when needed from school administrators, district specialists and others. Technology coaches are an integral part of professional learning as well, providing hands-on training that builds teachers' technological and pedagogical confidence.

Teachers also need opportunities to experience instructional approaches with digital media to gain a deeper understanding of how new approaches support teaching and learning. To develop teaching skills with online tools, those responsible for professional development need to model these experiences when developing professional learning offerings. Experienced technology coaches can play an important role in helping to train teachers to use new technological tools and resources.

Instructional Technology Coaches in Action

- In Westfield Washington Schools in Indiana, the technology instructional coach meets with teachers in one-to-one or small-

Communities of practice can play a valuable role for researching and sharing ideas and resources—and provide a forum for disciplined discussions over time.

group settings to provide professional development focusing on integrating digital media with the content that they plan to teach to their students. These sessions take place in teachers' classrooms to demonstrate techniques and enable hands-on, interactive training. Teachers communicate regularly with the coach during the semester to report on different strategies they discover and compile best practices that can be shared with other teachers.

- Using a similar instructional coaching model, every school in the Fairfax County Public Schools has a full-time, school-based technology specialist who serves as an instructional technology coach. First and foremost, the role of these coaches is to help teachers learn and refine instructional practices using technology to facilitate student learning. The task of the coach is not just to help the teacher use the technology; rather, it is about *how* to use the technology to provide excellent instruction. It is important for the coach to enable and empower teachers with the technological tools to personalize instruction and provide collaborative learning.

- Recognizing that creating new knowledge through technology is integral not only to how today's students learn, but also to preparing students for the careers of tomorrow, Centennial School District in Pennsylvania converted its planetarium into a 21st Century Learning Lab. The facility functions as a dynamic digital learning space for use across all K–12 curricular areas, configurable for a variety of challenge-based learning experiences. An instructional technology specialist and coach collaborates with teachers to try out new ideas with students, design and deliver lessons, evaluate ways to leverage emerging technologies, support collaborative learning, bridge the physical/digital realms, and support an instructional shift from learners being information consumers or spectators to being information users and knowledge creators.

Communities of practice can play a valuable role for researching and sharing ideas and resources—and provide a forum for disciplined discussions over time. Cohorts of teachers, students, administrators, researchers and others can apprentice, share and learn from one another in online and offline communities of practice. Online communities of practices empower participants to extend face-to-face interactions, or collaborate with others exclusively online. Within this online space, all stakeholders can share, start conversations, reply to discussions and ask questions. Small groups conduct research and bring back knowledge

Time for teacher collaboration and practice is the most effective investment a district can make.

learned to encourage and inform questions and conversation. Diversity in communities of practice can push stakeholders to think about a range of perspectives on topics of shared interest.

Communities of Practice in Action

- Oconomowoc Area School District in Wisconsin partnered with a local college to offer on-site, for-credit graduate courses focused on participatory practices with technology. Course instructors modeled what might be done in classrooms, and teachers were encouraged to form cohorts within the district to support learning and share resources (often through Google Drive) after the course ended. For instance, a blended model of online and face-to-face instruction using Google Apps and digital classrooms had teachers critically examine the potential value of media or tools instruction and, more importantly, their impact on learners. Teachers embedded social media, filmmaking, game design and mobile devices in their content areas to design or enhance learning opportunities for their students.

While these examples are great starts, *time* for teacher collaboration and practice is the most effective investment a district can make. It is critical that the school board and parents support the use of time during the school day for teacher professional development. Support from the community allows district leaders to more easily allocate school time for teacher collaboration and professional learning.

Key Point Six:

The school board needs to support the transformation of teaching and learning.

School board members need to know about, understand and support changes in instruction and pedagogy that may cause concern among parents and other community members. An effective way to get school board members on board is to take them to classrooms so they can see first-hand the innovative, collaborative learning taking place to improve student learning.

Engaging the School Board in Action

- In Manor Independent School District, school board members are invited to district campuses at least once a semester. When board members see successes, they are more likely to support shifts in

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practice. When they see funded projects stalled, or teachers and students not being successful, it sparks conversation. Districts involved in serious transformative efforts may encounter bumps in the road, which may generate parent concern that extends to the board level. Board members who understand and support changes under way can reduce the likelihood of problems turning into crises.

Key Point Seven:

Teacher education programs must be revised and improved to provide new teachers the skills to implement digital learning in their classrooms.

Greater progress needs to be made in colleges of education to prepare new teachers to leverage technology in schools that are moving forward with digital learning. Partnerships with higher education institutions are critical to achieve this goal.

Higher Education Partnerships in Action

- Clemson University's School of Education revised its undergraduate technology-related teacher preparation courses to focus on exploring digital media and learning via participatory approaches and new media literacies. Courses emphasize topic areas such as visualization tools, social media, games and mobile devices for learning. Students engage in instructor-led classroom scenarios considering the tools in the context of curriculum, and then reflect on the value of digital media for learners as well as ties to new media literacies and connected learning approaches. Furthermore, partnerships with local schools allow faculty, pre-service and in-service teachers to participate side-by-side in university-sponsored workshops exploring application development, mobiles and games for learning.
- Since 1999, the State College Area School District has had a collaborative relationship with the College of Education at the Pennsylvania State University in a highly successful and nationally recognized Professional Development School. This program has significantly improved both the teacher training programs at Penn State and the in-service teacher development in the district, fostering transformative changes in instruction. The most notable strengths of the program are the emphasis on teacher inquiry and strong

mentoring relationships experienced by the 60+ pre-service students who are placed in State College Area schools annually for year-long internships.

- Manor Independent School District established a partnership with the University of Texas College of Education, resulting in a project-based learning experience for student teachers. In addition, students do field training on the district's campuses before they begin student teaching.

In Conclusion

There is no recipe for accomplishing school transformation. Every district is different, and a single set of action steps won't fit all.

Thus, the seven key points offered here are not meant to be a recipe. Rather, they capture shared themes that the members of the CoSN Leading Edge Cadre have encountered and worked to address, as the examples illustrate. The key points, then, are intended to be key considerations for successfully launching, implementing and sustaining efforts to transform learning with digital media. We hope these considerations are useful in stimulating the creativity of others who are onthe same path as we are.

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