

# INFOFORUM

the mascd journal

*Ideal teachers are those who use themselves as bridges over which they invite their students to cross, then having facilitated their crossing, joyfully collapse, encouraging them to create bridges of their own.*

Nikos Kazantzakis (1883-1957)

## MASCD Goals

### Goal 1

Expand the sphere of our influence by being a strong and proactive organization dedicated to providing exemplary leadership and support for educators throughout the state.

### Goal 2

Make member services a priority in order to assure that across this geographically expansive and isolated state, we have a membership that represents all counties and includes a diverse array of cultures.

### Goal 3

Address pressing contemporary issues for the purpose of bringing an awareness of critical concerns to our educational leaders, who will participate in determining responses appropriate to our diverse rural Montana school environment.

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# Teaching in the 21st Century

Imagine writing a predictive paper in the early 1900s about how technology would change over the next century. The Wright Flyer had just taken off, the Model T was starting production, and computers were decades away. No one could have imagined how every aspect of our lives would be changed by technology.

Writing a predictive paper about how education would change over the next century would have been a much easier task. The classroom of today looks very similar to the classroom of the last century. Unfortunately the rest of the world is not waiting for us to catch up. Students today face a global market place that simply did not exist twenty years ago. Innovation and creativity are the new commodities that drive our economy. Successful teaching in the next century will require both a philosophical and a pedagogical shift in education. It will be a difficult transition but it is a step that we must be willing to take.

I won't try to predict what future technology will bring to education. This would be a waste of time. The only thing predictable about technology is that it has been a disruptive force in every business it touches. The Encyclopedia Britannica was replaced by Encarta which was in turn replaced by Wikipedia. Each of these transitions made our world better, unless you sold encyclopedias for a living. Vinyl records were replaced by CDs

*"If you could change one thing about education what would it be?"*

which were in turn replaced by MP3s. Each of these transitions made our world a better place, unless you worked in the record industry. Technology will disrupt education as well. It is up to us as educators to shape, rather than react to, this disruption.

We took a brave first step at Bozeman High School two years ago when we re-wrote our electronic use pol-

icy. Before the change we had a "no tolerance" policy at the high school related to personal electronics. Cell phones and iPods were confiscated and held in the main office until the student's parents picked them up. This policy forced teachers into confrontational situations in the hallways with students they didn't know. More importantly it sent a negative message of to our student body. We now have a policy at Bozeman High that embraces technology. Students are able to use electronic devices in the common areas throughout the school. Personal electronics may be used in the classroom at the discretion of the teachers.



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**The mission of the Montana ASCD is to facilitate teaching and learning to ensure success for all Montana students.**



*"When students feel connected not only to the teacher but to the subject itself, they quickly become eager to explore."*

- Michelle Shearer  
2011 National Teacher of the Year



## in this issue

*Thanks to the following Montana educators for their valuable contributions to the June InfoForum and the ongoing conversations about quality education for Montana.*

- **Paul Anderson**  
Teacher  
Bozeman Public School

*Paul was one of four national finalists for National Teacher of the Year.*

- **Joules Kilmurray**  
Student  
Bozeman Public Schools
- **Jason Neiffer**  
Curriculum Director  
Montana Digital Academy
- **Chris Frederics**  
Student-Secondary Education  
Montana State University

## Sailing the Seven C's of Education: In Short

You may have heard of the 4 C's of the 21<sup>st</sup> Century Skills. You may have also heard that some educators are focusing on the 7 C's. So what exactly are the various C's, and what is the basis for them?

According to the Partnership for the 21<sup>st</sup> century (<http://p21.org>), the four main C's are as follows:

- Creativity & Innovation
- Communications
- Collaboration
- Critical Thinking & Problem Solving

Further investigation into the P21 website reveals there are other areas that educators need to focus attention to while incorporating the 4 C's.

- Computing – Technology, Information, and Media Skills
- Career & Life Skills – Flexibility & Adaptability, Initiative & Self-Direction, Productivity & Accountability, Leadership & Responsibility, and Social & Cross-Cultural Skill
- Core Subjects & 21<sup>st</sup> Century Themes

Montana ASCD will continue to focus on the P21 Initiatives in our state. If you are an educator, or you know of one, that has been working to infuse the 7 C's into their school or classroom, we would like to highlight your efforts in a future newsletter.

Please contact Chris Olszewski ([chris\\_olszewski@gfps.k12.mt.us](mailto:chris_olszewski@gfps.k12.mt.us).)

Sources:

[http://p21.org/index.php?option=com\\_content&task=view&id=254&Itemid=119](http://p21.org/index.php?option=com_content&task=view&id=254&Itemid=119)

**www.mtascd.org**

## Teaching in the 21st Century

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This new system has allowed many teachers to experiment with innovative uses of technology. For example this year I have been using the website [polleverywhere.com](http://polleverywhere.com) to gather student responses. We are currently studying plants in AP Biology and I began class with the following question:

Which of the following processes contributes the most to the mass of a maple tree?

- absorption of mineral substances from the soil via the root
- absorption of organic substances from the soil via the root
- incorporation of CO<sub>2</sub> gas from the atmosphere into molecules by green leaves
- incorporation of H<sub>2</sub>O from the soil into molecules by green leaves
- absorption of solar radiation into the leaf

Students were able to text their answers to this question to the website and the results were instantly compiled in the front of the room. When teaching science I have found that it is important to identify student misconceptions in a non-threatening manner. The availability of cell phones in my class has allowed me to improve education with no additional cost to the district. I hope that this easing of the electronics policy is a first step in improving student relations and learning.

I recently interviewed for National Teacher of the Year in Washington DC. In preparation for the interview I talked to the students in my class. I asked them the following question, "If you could change one thing about education what would it be?" The overwhelming responses dealt with teacher quality and the relevance of instruction. We all understand that to improve education we need to change from a passive, teacher-centered learning environment to an active, student-centered learning environment. This is the future that I want for my students and

this is the future that I want for my children. Why is this such a difficult transition?

As I walk through the halls of our school I am struck by the number of classes that use lecture as the dominant method of instruction. The lengthy PowerPoint has become the standard lesson plan for many classes. When students leave our schools they are entering into one of the most technologically sophisticated and stimulating environments that has ever existed. It is hard to fault them for being bored after sitting through several periods of lecture. Early in my career I modeled my teaching after some of my favorite teachers. This practice is very common among teachers; but it is too linear will never bring about the innovation required at the moment of disruption.

We can improve our schools by pushing the more mundane aspects of teaching outside of the classroom. I have been uploading science lessons to YouTube for the last two years and the number of views has increased exponentially. My students are able to view the lectures before coming to class. The discussions are richer and I can spend more time doing science. More importantly I receive positive feedback from learners around the world. This drives me to create more effective lessons which in turn gives me more positive feedback.

The recent financial crisis has changed our economy forever. Downsized jobs and failed industries will not return. During this time of historic lows we need to invest in our most important asset. We need to invest in ourselves. The quality of the next generation will depend on the quality of our educational system. Teachers can play a large role in this educational shift but they must be willing to embrace new technologies and teaching methods. If you are interested in changing the way you teach find me at [bozeman-science.com](http://bozeman-science.com) and send me your thoughts.

### Presenting the MASCD Board of Directors

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*MASCD builds and fosters collaborative partnerships to produce meaningful, effective, and timely professional learning for all educators. Be sure to check out our website at:*  
[www.mtascd.org](http://www.mtascd.org)

# Learning in the 21st Century

- Joules Kilmurray, Student  
Bozeman Public Schools

What does it mean to be a 21st century student? We hear the terms “21st century” and “digital native” so often, but what does it actually mean to be a 21st century learner in the increasingly digital world? It’s not just about using technology - although, undoubtedly technology will help us reach our educational goals. It’s more about using technology as a tool to help us shift the way we view education.

If students are to be effectively prepared for life beyond K-12 education, we need more than what schools have been offering us in the past. The most obvious difference in what my generation of students needs is knowledge on how to operate and use technology with ease and confidence. We may be the digital natives, but many of us are lost when it comes to anything beyond sending texts and checking Facebook. We need to be taught how to use technology as a tool that can assist us in our future jobs and in our education. We need to be taught how to use technology to increase productivity, collaboration and creativity. We also need to know how to be digital citizens and how to make smart decisions online. More important than knowing how to use technology appropriately, is being able to do more than regurgitate facts that we learned in school or pass a high stakes test. My future employers are looking for ingenuity, resourcefulness and critical thinking. They care about more than my test scores and GPA. They care about what I can create and how I can be innovative. My future employers may be hiring me for a job that doesn’t even exist yet.

We are bombarded with information in today’s digital age. So often we hear of how students are being overstimulated by technology, that we are being driven to distraction. We’re constantly multitasking and unable to truly focus our attention on just one thing. Notifications from Facebook, new emails, a plethora of text messages and tweets to be read. We’re constantly being notified. Our social life never sleeps. We are the social beasts, and we never run out of methods to stay connected. We don’t have long enough attention spans to read the book that has been assigned to us in English class. But in class the information is rarely presented in a way that is stimulating and engaging, so is it any wonder that we fall victim to activities that spark our interest in the virtual world? So instead of reading our book, we read Spark Notes or watch a YouTube summary of the book.

But halfway through our book summary, a blog post or cool video captures our attention, and so we abandon our attempt at English homework, and down the rabbit hole we go.

With all of the crippling over-stimulation, why are so many of us under-stimulated in school? Why do the majority of classrooms look exactly the same every day? There is a teacher standing in the front of the room, lecturing to students. We remain stationary in our desks, while the world around us discusses our generation’s apathy. Students are bored and unmotivated. We’re not engaged. We don’t see the relevance to what we’re learning or how it will further us when we graduate from high school and enter into a competitive and global job market. As students, we crave relevance, connections to the outside world and to other subjects, and one-on-one time with our teacher. How can we connect the world we’re in at school to the world we’re in when we leave school when they are so vastly different? At school I sit in a desk and listen to a lecture with a class full of my peers. When I physically leave my class, I mentally leave my class. But regardless of where I am physically, I’m always connected to a world that is completely stimulating, engaging and always available. I discuss improving education with other students in Canada. I watch YouTube videos with people all over the world. I’m chatting with my friend from Ecuador and Skyping my family in China. The world is literally at my fingertips. Shouldn’t my classroom be like this too?

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***“I dream of a classroom with truly differentiated learning, where I am adequately challenged yet not afraid to fail or make a mistake, and where I can learn at a pace that is right for me.”***

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I’ve been fortunate enough to attend a school that gives a clear message to its students that they understand how we’ve grown up with and connect with technology. When Bozeman High School changed its electronic policy, it essentially told its students that they understood that a defining characteristic of our generation would be the

smart phones and iPods they previously had been confiscating. Technology is a powerful way for schools and teachers to connect with their students; it allows us to bridge the gap between our digital worlds and our educational ones. By doing so, we are able to connect and see relevance.

Technology allows us to both extend the classroom and automate many aspects of teaching. By doing this, teachers are able to spend more time in class creating 21st century learners who will be effectively prepared for the world they are entering. Teachers can spend time creating students who question, who inquire, who research and who discover. Students

## Learning in the 21st Century

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who are able to demonstrate not just simple rote memorization, but who are able to apply and to effectively use their knowledge. And with the extension of the classroom, the classroom becomes just as accessible as our social lives that never sleep. The door to learning is always open.

Technology allows teachers to spend less time introducing new concepts into the classroom and more time delving deeper and questioning the material. So often I find myself sitting at home after school, watching videos posted by a teacher halfway across the country lecture on YouTube. This isn't part of my homework, but when my teacher lectures on the same subject the next

morning, it won't be brand new to me and I'll have a chance to ask really meaningful questions. Not to mention I can pause, rewind or fast forward to perfectly shape the flow of information I am receiving to fit my individual needs.

Technology is not necessary to make some of the changes necessary to improve education, but it is a powerful tool that teachers often shy away from. As a student, I can only hope for the teachers that are willing to make shifts in the way they teach, embrace the unknown and sometimes scary digital world, and learn with me. I dream of a classroom with truly differentiated learning, where I am adequately challenged yet not afraid to fail or make a mistake, and where I can

learn at a pace that is right for me. 21st century learners need to be challenged. Make us think, ask us questions and do more than skim the surface of our textbook during a lecture in class. Let me learn from my mistakes, force me to apply my knowledge and don't hold my hand. Don't tell me to turn my work in, instead tell me to publish it. We need to raise our expectations of students because the world has raised its expectations. I recognize that it is not easy to make shifts in the way a classroom is run, and I know that it will not happen overnight. But I also know that these are the changes that must occur if teachers are to adequately prepare us for the 21st century.

## *Mark Your Calendar Now!*

### **Montana Educators' Institute**

*June 12-15, 2012*

**Great Northern Hotel Conference Center**

**Helena, Montana**

### **Ken O'Connor**

***Fixing Broken Grading Systems***

**June 12, 2012**



# Introducing Online Learning With Montana Digital Academy

- Jason Neiffer, Curriculum Director  
Montana Digital Academy

Montana Digital Academy is Montana's state-supported online learning program for students in Big Sky Country. Created by the 2009 Montana Legislature with ARRA dollars, and granted funding for 2011-2013 by the 2011 Legislature, MTDA is a unique state-wide virtual school that utilizes several partnerships with diverse groups interested in education of Montana's students.

MTDA is housed at the Phyllis J. Washington School of Education at the University and works closely with the Montana University System, MEA-MFT, School Administrators of Montana, Montana School Board Association and the Montana Rural Education Association to build online learning environments for Montana's school-age population.

During its initial year, MTDA developed two parallel programs that each serves specific student needs.

MTDA's **original credit program** features over 50 courses that are intended to give students the opportunity to take classes that might not be offered at their local district. The courses are run in a traditional cohort model, offering students a challenging learning environment with media-rich lessons and interactivity with the instructor and other students. All instructors are Montana-licensed teachers working in some capacity with a Montana public school district. Original credit courses include:

- Seven Advanced Placement courses designed to give students in a small schools the opportunity to access rigorous AP courses to help prepare for college.
- Six world language courses including popular courses like Spanish and French and unique courses that are traditionally not offered at Montana high schools like Mandarin Chinese and Irish Studies.
- Several unique electives that are not widely offered in Montana schools including Environmental Science, Oceanography, Digital Photography and Native American Studies.

MTDA's **credit recovery program**, dubbed MTDA Connect, is aimed at students that have some experience in a specific course but have yet to earn a credit at their local institution. MTDA Connect utilizes a flexible, open-entry, open-exit mastery learning model targeting instruction to a student's specific weaknesses in an individual course. MTDA Connect students rely on a team of advocates, including a Montana-licensed teacher serving as an academic coach and local adult support helping monitor student progress, to help students succeed in the credit recovery environment.

MTDA programs are open to all school-age children in the state of Montana though their local school district. Students must enroll through their local school district and the school district is charged with granting credit to the student at the end of the course.

In its first year, MTDA served students in a variety of unique situations. Many students took MTDA courses to supplement their local school offerings. Some utilized MTDA as a chance for credit recovery or to catch up with same-aged peers in credits to graduate on time. Others took an online course to free up their face-to-face classroom schedule to add additional courses like music, advanced science or dual credit math. Many MTDA students face unique health or family circumstances that require opportunities for learning beyond the traditional classroom environment.

For more information on MTDA, please visit our website at <http://www.montanadigitalacademy.org>. MTDA is also looking for teachers for the 2011-2012 school year. For more information, please see our employment page at <http://www.montanadigitalacademy.org/employment>.

You can reach Jason at [jason.neiffer@montanadigitalacademy.org](mailto:jason.neiffer@montanadigitalacademy.org).

*A teacher affects eternity; he can never tell where his influence stops.*

*Henry Brooks Adams*

# The Roots of Emotional Turmoil for Pre-Service Teachers

- Chris Frederics, Student  
Montana State University

During the period of time that I have spent as a pre-service teacher, I have been confronted with a unique combination of conflicting emotions. Sometimes I have found myself angry and nervous, contemplating the reasons why I must suffer through certain pre-service course. Meanwhile, I question whether I am truly ready to be in front of a classroom. More often, I find myself satisfied that I am making the transition from student to teacher. And still, I am sad to be leaving the aspects of school that led me to the profession I feel destined for. Though I can't be certain, I believe that these and many other conflicting emotions are shared by most students of education. While they likely share similar concerns, it is becoming more and more clear that each new generation of teachers have widely different issues to face – both in the classroom and out. As of late, there are many to list. I would like to share some of the more salient I believe I am likely to face as a prospective teacher. In doing so, I hope to project not only my concerns, but the consensus of concerns specific to my generation of teachers.

The first concern I have are the affects of No Child Left Behind (NCLB) and Adequate Yearly Progress (AYP). Before even stepping in front of a classroom, I have already questioned my ability to meet these requirements, which is highly discouraging. To assess the validity of my concern I have read a number of studies that question the affects of NCLB. Some studies say that it has had positive affects while others say it hasn't but most are not very willing to make a direct claim either way. One study that uses data retrieved by National Assessment of Educational Progress concludes that since the inception of NCLB, math scores have progressed and reading has remained relatively the same. However, it cannot be concluded that NCLB is sole factor benefiting national math scores. After tirelessly reading a number of studies, I feel no better. In fact, I am more fearful for my job security. When a student of mine fails to make Adequate Yearly Progress, I would be left with yet more conflicting emotions. For one, I will enter a period of self loathing for failing my student. One the other hand, I may feel subject to a relatively new set of laws that has only begun to work out its kinks. It may also be very difficult to assess the actual reason behind the failure- Was it my curriculum or teaching methods? Or, could it have been the student's inherent ability or engagement in academics? Meanwhile, my teaching methods are put into question by the school administration.

I have further concerns regarding NCLB, however, let me first reiterate a comment I had made earlier. I had mentioned something about suffering through many pre-service courses. Actually, I have truly found great value in many of these courses. Through them, I have really come to love the philosophy of a teaching by means of constructivism. However, I can see how NCLB is likely to decrease my freedom to teach based on inquiry. In other words, I did not go to school to become excellent at preparing my students for standardized tests. Rather, I want so badly for students to investigate various pathways of education based on their interests. It will undoubtedly be harder to facilitate that environment if they are not making adequate yearly progress.

Another concern specific to my generation of teachers is the expanding realm of technology. I am most concerned about connecting with students on technological level. In an age where getting information "right now" is not fast enough, I fear that the time the progression of learning takes will be too long to keep the attention of my students. As a young teacher, I feel a unique responsibility in the technological fields. Veterans may be relying on me to educate them on new resources. Also, students will assume more common grounds in the area of technology. The degree to which I am tech savvy will greatly affect my ability to connect with all individuals in my future school.

Another issue regarding technology is the level of impersonality. For example, there is an increasing popularity of online classes. Nothing about having a more in-depth relationship with my computer than my students excites me. Though that may be the case from time to time anyway, a personal interaction with my students is of the utmost priority. Along those lines, the era of smart phones, iPods and Facebook pose a number of issues that are much less visible. Cyber bullying, plagiarism, and general safety are a few. I can see schools beginning to teach entire courses on Internet safety and smart use.

Yet, amid all of the technology nahsaying, I also believe that technology will allow me to explore infinite avenues of delivering new material. Computer resources lay a whole new platform for inventing lesson plans and that is exciting.

To wrap up the roots of a pre-service teacher's emotional battles, I would like to tell a short story. I was at an education forum a few days ago. At the forum there were two former classmates who had just fin-

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## The Roots of Emotional Turmoil for Pre-Service Teachers

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ished their student teaching. They first talked about their experience, and then followed with a Q & A session. From all that was said, there were a number of quotes that stuck with me for a number of days following. One was, "Often I didn't have time to eat." Another was, "Most of the time I had trouble sleeping because I was so preoccupied with how I was going to teach my lesson the next day." There were many others of a similar nature, but the point is that I am a little scared for my personal health in the coming years. Sometimes, I like to eat and sometimes I like to sleep. Other times I am so bold as to take a few moments to myself. Often, I fear that I have exterminated simple levity from my life.

However the next few years turn out for me, I know that I will be challenged in ways I never have been before. NCLB may continue to challenge teachers for quite a while. Still, there is no doubt in my mind that it will eventually change in a positive manner that suits the educational needs of students. Technology will continue to expand and teachers will carefully adapt as they have done in the past. As for sleeping and eating... Well, I at least realize what I have given up to transition into a continually rewarding profession. In the mean time, I will binge as hard as a poor student can.

Dee, T., & Jacob, B. (2010). Evaluating NCLB: accountability has produced substantial gains in math skills but not in reading. *Education Next*, 10(3), 54+. Retrieved from [http://ic.galegroup.com:80/ic/ovic/AcademicJournalsDetailsPage/AcademicJournalsDetailsWindow?displayGroup-Name=Journals&prodId=OVIC&action=2&catId=&documentId=GALE%7CA245037871&userGroupName=mtlib\\_1\\_1123&jsid=c08b060f9bfb72bf0228b6415ac1feb7](http://ic.galegroup.com:80/ic/ovic/AcademicJournalsDetailsPage/AcademicJournalsDetailsWindow?displayGroup-Name=Journals&prodId=OVIC&action=2&catId=&documentId=GALE%7CA245037871&userGroupName=mtlib_1_1123&jsid=c08b060f9bfb72bf0228b6415ac1feb7)



### GOALS

- Expand the sphere of our influence by being a strong and proactive organization dedicated to providing exemplary leadership and support for educators throughout the state.
- Make member services a priority in order to assure that across this geographically expansive and isolated state, we have a membership that represents all counties and includes a diverse array of cultures.
- Address pressing contemporary curricular issues for the purpose of bringing an awareness of critical concerns to our educational leaders, who will participate in determining responses appropriate to our diverse rural Montana school environment.



*Working together to promote success for all Montana students.*

- Institutes
- Book talks
- Forums
- Exhibitor Fairs
- e-Newsletter/e-Journal
- Partnerships with other organizations
- Sponsorships



## Montana Association For Supervision And Curriculum Development

*The mission of the Montana ASCD is building and fostering collaborative partnerships to produce meaningful, effective and timely professional learning for all educators.*

### Who should join?



Our membership includes educators in public and non-public educational institutions throughout Montana.

- Teachers
- Counselors
- College Professors
- Principals and Assistant Principals
- Department Facilitators
- Supervisors
- Superintendents
- Education Administrators
- Staff and Curriculum Developers

**Visit us on the web!**

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