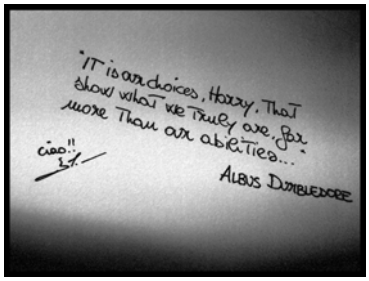

Creativity Matters

Comments to the faculty of the New Orleans Center for the Creative Arts
Dr. Larry Johnson, April 18, 2008

In the spring of 2008, the New Orleans Center for the Creative Arts embarked on a journey to create a new sort of school, one that aimed to bring the values and practices of time-honored conservatory practices in the arts to the entire curriculum, and in the process to create an entirely new sort of high school. These comments were delivered to a convocation of the NOCCA faculty and staff as the scope of that undertaking was just taking shape.

Thank you, Erika, and good morning to all of you. It is such an honor to be with you today, and to be able to play a small part in this amazing journey you are undertaking.

My remarks this morning revolve around a simple theme. Creativity matters.

I don't mean creativity matters in a "yeah, it's important," kind of way. I believe that creativity matters like the air we breathe matters. I think it matters like the roof over our heads, and like the clothes on our backs. It sustains us, as a society, like the food we eat, and it nurtures us.

Creativity matters like family matters. To a community with as rich a creative tradition as this community, it matters like the blood in our veins.

Creativity matters deeply.

This picture is of my family – my grandparents. They, like many of the artists and musicians here in New Orleans were also working people. They were born in 1900 and 1901, and their lives filled that century. My granddad was a plumber – here he is with his first plumbing truck.

I think of them often, and often I think about the wonder that was their lifetime. We often talk about change being so much a part of our lives, but I find it useful to reflect on the changes they experienced:

Think about that – what would you put on your list of innovations from the 20th century?

- Transatlantic radio
- Electricity
- Radio networks
- Telephone system
- Automobiles
- Air travel
- Washing machines
- Television
- Interstate highway system
- Highrise buildings
- Electronic computers
- Space travel
- Satellite communications
- The Internet
- Global positioning system
- Cable television systems

For my grandparents, the future was a place of infinite possibilities. It was a place of leisure, made possible by the tremendous power of the industrial age. Everything was big and powerful, and devices that we hold in our hands today filled rooms, like this radio Marconi used to listen to the first signals from Mars.

Can you imagine how incredible it must have been, at the time, when it was new? The potential of that signal fueled a flood of science fiction novels, essays, movies, and more.

This is an illustration from one of the pulp novels that was published when my granddad was in his 20s. Anything was possible….

My grandparents, like many of yours I suspect, are gone now, but I remember them all the time, and I remember how they influenced me and taught me. I remember the values they gave me, because they are my values still today. Persistence was the key, they showed me. Take it one step at a time, but keep moving. Never give up. They taught me respect for others, and instilled in me a sense of pride in work well done.

The one thing they did not instill in me though, was a sense of the arts. And at home growing up, there was no music, no dance classes, no trips to the museum. The arts were not part of my childhood, because the arts cost money.

My sense of the schools I went to was that they were good. I studied hard and made good grades, but I couldn't be in the band because instruments cost money.

I suspect that my story is the story of far too many kids.

I grew to feel this incredible hunger. Something was missing in my life, and it was as if I were driven to do something about it. I took an after school job when I turned 14, and bought my first guitar a few weeks later, for $6, and with an old book of chords from the library, I started teaching myself to play.

And I kept on learning until I got good enough to start playing in bands, and kept playing until I put myself through college playing blues in Austin Texas. Along the way, I learned all the strings, and then the winds, but the guitar was always my instrument.

I was driven, and I think at some point anyone who really makes a go at the arts feels that way. I'm reminded of that famous interchange when Freida Kalo finally got up the courage to go to talk to Diego Rivera, who was painting a mural near her school. She carried a stack of those little paintings she is so famous for his feedback, and asked him, "How will I know if I am a painter?"

Diego's reply cuts right to the heart of it: "You know you are a painter when you can't stop painting."

I knew I was a musician because I could not stop making music. And even though it has been 20 years since I played professionally, I still can't stop making music.

When I walked the halls here yesterday, I saw kid after kid after kid just like that. You can see the drive in their faces, and see their passion in their intensity.

And that is the beauty of creativity – you may choose to not do much to foster it, but you cannot stop it.

The photos behind me are my attempt to illustrate that aspect of the arts – the passion of an artist that drives him or her to create -- because I want it to serve as backdrop for the rest of my comments this morning.

Sir Ken Robinson, the educational provocateur from the UK, loves to tell a story about creativity, and I think it deserves retelling here.

Ken believes that as a society, we waste creativity systematically. I think he is dead on with that.

His view is that we boil the creativity out of people as children. In school. We literally punish them for straying outside the lines, when outside the lines is the very place where creativity lives.

He tells this story ever so much better than I can, but it is worth telling over and over and over.

It is a story of a little girl who could not sit still. She constantly fidgeted and moved about. Her motions were a disruption to her classmates, and she found herself in trouble all the time.

Her parents were worried, and like all caring parents, looked for help, and eventually found themselves at the doctor's office. The doctor examined the girl and gave her a battery of tests, and then after several visits, he asked the parents to come in with her. The doctor talked briefly with the 3 of them, and then asked her parents to step out of the room with him.

As they left, he leaned over and switched on the radio to a music station.

The adults made small talk outside his office for a few minutes, and then he brought them over to look through a one-way glass into his office …

You can guess what they saw — the girl was up out of her chair, swaying to the music…her body interpreting the sounds from the radio instinctively in her motion.

And the doctor said, "I know what the problem is with your daughter… "

"She's a dancer…

"Get her to a dancing school."

The girl was Gillian Lynne. She grew up to be one of the most successful choreographers in the world, with a host of productions to her credit, including Cats, and Phantom of the Opera ….

What that doctor knew, to his everlasting credit is this: creativity matters. Had young Gillian been put on Ritalin, we'd have lost one of the great artists of our age.

Well here we stand, in a dancing school. And a music school, and a theater school, and a writing school, and a school for all the disciplines that make up NOCCA.

You know what to do with creative people. You know how to nurture them, and challenge them, and how to guide them to be as good as they can be.

And you know that the world is changing around them. And the world is changing around NOCCA.

Some of these changes are technological. Some are sociological. Some are economic.

However talented these kids are, the likelihood is even in a city with as rich an artistic tradition as New Orleans, only a few of them will make a solid living in the arts throughout their lives. The odds are that theses kids will change jobs fifteen times in their careers – half of them will take jobs out of college that do not even exist today.

I talked about my grandparents and the changes that they saw in their lifetimes. How much have your fields and disciplines changed in your lifetime? How have opportunities changed?

Let me ask you to noodle on these and a couple other questions as I move toward my last few points, because I hope we can end the time today with some discussion of these and other issues relevant to what you are trying to do.

What did you learn when you were in high school that has stood the test of time? What did you learn that you still find relevant? And did you learn these things in school at all?

I think we all have a sense of the great sociological trends that have impacted us as a society, but some of the ones that may impact us in the greatest ways are not happening here in North America. They are all too easy to overlook, but in the last twenty years, family size has been decreasing in Asia, and with it, a huge middle class has emerged, one that outnumbers the population of the US several times over. The educational levels of the average person from India or China are approaching those in the US and Europe, and these economies are booming. The kids I saw yesterday are likely to live in a much different world than the one in which we grew up.

Technology is fueling other kinds of change, and these changes are perhaps easier to see through our North American perspective.

In my work at the NMC, we are following a set of seven metatrends that our research has shown are unfolding in significant and important ways. Already we are seeing the impact of these trends on not only the ways we use technology, but even the ways we think and communicate. New art forms are evolving, and notions of composition and authorship are evolving even faster.

These seven metatrends include

- the evolving and increasingly transparent ways humans communicate with machines;
- the ways we collectively share and generate knowledge;
- the movement of everything into three dimensions;
- the shift to people as the organizing principle of the network;
- the increasing legitimacy of games as pedagogical platforms;
- the shifting of content production to users; and
- the convergence of computing and communication into one (increasingly handheld) platform.

These changes are clearly already underway, and their impacts are going to be profound. The challenges involved in preparing the next generation I believe are going to require our very best creative thinking.

And that is why the process you are embarked upon is so timely. NOCCA has the opportunity to think about what needs to be done in ways that no other institution I can think of can.

Think about the changes that took place in our grandparents time, and in our own lives.

What is the essence of a curriculum that can stand the test of time in this environment?

I think you have it here.

You've been doing it here…for 35 years.

Yours is a curriculum that at its center respects the artist, the work, and the material; that allows the development of an artistic voice, and encourages collaboration, ensemble, and honest and constructive feedback. Yours is a curriculum that works. Kids are engaged, energized, excited about learning.

And that brings me to my final set of questions…posed to you, as the experts here.

What if you took those same values and applied them to mathematics, which was the discipline I studied as an undergraduate?

By this, I do not mean getting artists to teach math. One of your own students said it eloquently, "I don't want to learn math from my dance teacher. I want a math teacher who is as passionate about math as my dance teacher is about dance."

Bear in mind your organizational values. In most math programs, collaboration and ensemble has another name – cheating. In most math programs, the development of an artistic voice would be considered totally unacceptable.

We are talking about turning conventional wisdom completely on its head…

How did Newton came to invent the Calculus? Because the math he has been taught was not sufficient for what he wanted to do – so what did he do? He invented a new math.

What inspired Gauss to devise a theory of knots? These and dozens of other mathematicians found their voices, and each knew that mathematics had an elegance and beauty.

Most people don't have clue that some of these areas of math even exist, unless they are in a graduate mathematics program. Why does it have to be like that?

It doesn't.

What if the way into that elegance and beauty was through art? What if the goal of a math curriculum was discovery? Why do we assume that everyone needs the same sort of math, when in fact there are so many ways to think about it?

Why must we learn arithmetic, then algebra, then geometry, then trig, then calculus before we can learn number theory, which uses none of the skills in those earlier disciplines?

What if we evaluated the learning of mathematics by the artistry of the sculptures that a student created using mathematical processes, rather than tests?

Even more radically, what if we emphasized the mathematics found in nature – the purity of the nautilus, and its relation to the golden rectangle. The fugue imbedded in a fractal? The Fibonacci sequence of leaves in a tree….?

Extend this thinking into the other classic disciplines of a high school. What if science was taught not as a bunch of laws and principles, but as a process of discovery, which it is, one in which failure is regarded as having as much value as success in building the body of knowledge.

How would history change? Even literature?

What if your chemistry class let the sculptor focus on the characteristics of clay for a sculptor, and the painter on the molecular level of a fresco?

What if your physics class looked at the nature of resonance and the vibrations of strings as the entry points for musicians? How does the kinetic motion of one's diaphragm make a difference in the unique sound of a particular wind player or vocalist?

You have the chance here to try another way. Lord knows we can see the shortcomings of the current system easily and everywhere.

There is a lot to be considered, and lots of ways to get sidetracked, but wow, wouldn't it be something?

How do you even hire for jobs like these? Credentials do not equal passion, I think we all agree. Do you have teachers audition for the math chair, just as you would for the principle violinist if NOCCA were an orchestra?

What are the criteria? I'd vote for an infectious passion and an inherent sense of wonder to go at the top of my dream math teacher's skill list.

Here is the thing – you have the one-of-a-kind chance to really think questions like that through, and this is a case where I truly believe that creativity matters more than anything.

Let me leave you with one last fairly heretical thought, and then let's open up the floor to discussion.

How many breakthroughs have been made by studying the ways things are done now?

How many centuries did we collectively spend studiously watching birds fly? At least six. Six hundred years. And how many times, after the hundreds and hundreds of attempts, has a flying machine based on the mechanics of wings flapping succeeded?

None.

The fact is that the answer to flight had nothing at all to do with flapping, despite all the time we spent trying to understand and master it.

Our view of flight was based on a faulty assumption that no one challenged for hundreds of years.

And when Bernoulli finally demonstrated the concept of lift, and the fundamental principal of differential pressure, flight exploded into reality within a few short years.

Real innovation requires creative thinking.

And that … is just another reason why creativity matters.

Thank you.