

**Remarks by Dr. Joe A. Hairston
Simba Conference
Marriott Marquis, New York, NY
October 19, 2005**

Good afternoon, and thank you for inviting me to speak at this prestigious forum. I told my staff that if I was going to be on Broadway, I'd better put on a show. That's how the video you just saw was born. (*I think they were afraid that if I didn't create a video, I might attempt to sing or act.*)

The goal of the video was to make two key points that lay the foundation for my remarks this afternoon. The first point is that our schools are experiencing an unprecedented level of national and state scrutiny. For the first time in history, our schools are being held accountable to educate every child and to prove with hard data that the children are learning.

Does this make our job harder?

Absolutely.

But it is also, absolutely, what public education should do, and should always have done.

The second point and the beginning point for my remarks is that our challenge is no longer simply to teach students to read, write, and compute. But to thrive and lead in the present and future, our students need higher level skills. They need to be able to analyze, design, create, and collaborate.

Many of you have probably read Thomas Friedman's book *The World is Flat*. He describes, probably better than anyone, how technology and connectivity have "flattened" the world increasing global competition, increasing access to information, and increasing opportunities for those who know how to innovate who know how to use and create new technology.

In a recent interview with Amazon.com, Friedman noted that when he was growing up, his parents used to say to him, "Tom, finish your dinner. People in China and India are starving." As a parent today, however, he says to his daughters: "Girls, finish your homework. People in China and India are starving for your jobs."

This is the world we are living in today. And the world that the students in our classrooms must lead into the future.

Let's look for a second at our classrooms.

A wise observer recently noted that if you lifted a physician from the 18th century to present times, that doctor would barely recognize the practice of medicine. But, if you moved an 18th century teacher into most classrooms in America today, the teacher would feel quite at home.

In Baltimore County... this is changing. It has to!

In Baltimore County, our first step was to create a plan. Our plan is known as the *Blueprint for Progress*. We remain focused on following that *Blueprint*. Our *Blueprint* is a living, breathing framework that keeps us on task and helps us better understand what works and what doesn't. So as our nation is grounded by the Constitution, our school system is grounded by our *Blueprint for Progress*.

One of our next major steps forward was to invest heavily in technology. For the past six years, we have spent \$28.5 million creating an operating platform, connecting the network, and providing computers and hardware. In addition, we have invested several millions more to integrate technology into instruction and provide appropriate professional development for staff.

The use of technology strengthens our business efficiency and supports our teachers and students in teaching and learning. We have used connectivity to flatten our world and to increase our ability to work smarter.

Another important step for us has been to examine, and re-examine, our educational program and make needed adjustments. We want and expect our students to thrive in the new global world. We want them to innovate, to engineer, and to lead. We want them to use the core knowledge that we are teaching and develop new core knowledge.

To achieve this, we are pulling on both ends – pushing fundamentals, like algebra, critical thinking, and world languages, to earlier grades. And, at the other end, we are pulling students up, challenging them to stretch – to take higher level courses, consider college, and prepare for higher education. We also want them to take Advanced Placement courses and intern with area businesses. We are in the sixth year of an extraordinary partnership with the College Board that encourages and prepares more of our students for higher education.

To make room for increased academic rigor, we have weeded out the 208 lower level courses that were taking up our students' time, but not fully occupying their minds.

One of the best examples of how this is working is the AVID program, Advancement Via Individual Determination. This program was designed to encourage those students who generally might not consider college. These are students who have often performed marginally. Through AVID, they are given additional academic and personal supports, and the results are extraordinary. Baltimore County Public Schools has been identified as a national model for this program. This year, for the first time, a cohort of our AVID

students is taking Advanced Placement courses. Having AVID in a school encourages all students to stretch themselves academically.

Throughout their educational careers, we are ensuring that our students are connected to the world. The Internet and world language instruction are merely a beginning. In Baltimore County Public Schools, we are building more international partnerships, with countries like China, Italy, and England. The purpose of these partnerships is to create meaningful opportunities to share culture, information, experiences, and ideas.

Throughout their educational careers, we are also ensuring that students develop as full individuals immersed in literature, the arts, history, and social studies. We understand the importance of the arts in promoting discipline, creativity, and collaboration. We also understand that our nationally and internationally recognized arts programs are integral to our curriculum.

Integrated in all that we do is technology. Technology strengthens our administration. Technology enables us to put real-time data about our students on the desktop computers of their teachers. This enables our teachers to use current, comprehensive information to shape what they teach and how they teach. Through our curriculum and professional development activities, we are integrating technology into instruction.

Let me give you some examples:

- Online professional development and student courses
- In-school television studios
- Inspiration and Kidspiration software – With over 15,000 licenses on Baltimore County instructional computers, this software provides students and teachers with a concept-mapping tool that allows them to diagram ideas and concepts and to clarify thinking.
- Digital microscopy – using microscopes and digital cameras, microscopic images can be captured, stored, and retrieved for multimedia presentations
- Interactive tablet technology – in use in all middle school science classrooms (approximately 300 classrooms) and in six high schools (12 classrooms)
- Video conferencing
- Handheld tools

And while we integrate technology into instruction, we understand that it is only a tool. It is there to support the critical interactions and exchanges between students and their teachers.

Our schools are already strong, and getting stronger, with regards to traditional academics. They are now on the path to becoming incubators for future innovation. For too long, schools have taught students about the past. Schools have shared with students information about past discoveries, past creations, and past achievements. In Baltimore County Public Schools, we want to lead our students into making discoveries, creations, and achievements of their own.

At this point we need to work more closely with all of you. While the schools have excelled at teaching students about the past, business has excelled at creating the future. An example would be that Intel executives recently noted that nearly 90% of the products it sells today did not exist a year ago. That is because business relies on research and development – which is something school systems need but do not have.

We have a tremendous opportunity here – ladies and gentlemen – to work together.

Our need is no longer just for new sets of textbooks every few years. We are spending far too much on textbook replacement – and any books that we buy, by the time we receive them, are already outdated.

We need innovative ways to communicate current information to our students. The emphasis is on delivering information in a way that is more engaging, that is more divergent (*that is addressing the various learning styles and abilities of students*), and that is more relevant to our students (*helping them make the connection between the material and their lives*).

We understand that the natural way to learn is to learn by doing. For these reasons, we need more materials that support us in allowing students to do just that.

We need materials that can be digitally updated. We need innovative ways to support our students and staff in working collaboratively.

These materials must be user-friendly for staff and students and must be aligned with the materials being used in higher education and the business world. These materials must also be aligned with who our students are (culturally and socioeconomically), and the world in which they live.

In a moment of reflection, I think about when we were growing up. If we wanted an answer to a question, we put on our coats and walked to the library. Today, we have young people in our schools who fully expect all the information they need to be available from the computers in their family rooms or bedrooms. They expect to be able to carry around their entire musical libraries on devices that are getting smaller and smaller each year.

The technology that is in their homes and on their hips and in their hands must also be omnipresent in our classrooms.

They expect, and we must give them, instruction that is more interactive! Technology supports this, but we must delve even farther to be sure that we are engaging them. It is not enough to pass on to our students a body of knowledge. We must also allow students to experience how this body of knowledge can be applied in meaningful and purposeful ways outside of the classroom and throughout their lives. We need to ensure that they have opportunities to reflect and analyze.

As you know, the evolution in personal computers is from desktop to laptop to pentop. With these pens, young people can have fun. They can draw drums or a keyboard and actually play them. They can keep their schedules and keep journals.

But the pentop computers have educational uses, too. Students can use them to compute, or to review material and take practice tests aligned to the exact textbooks they are using in school. The pen can become a personal teacher.

Again, the lesson here is that we are attempting to teach young people who come to us already technologically savvy. Nanotechnology and handheld devices are no longer the wave of the future; they are our present.

I have observed that technology, often born in the military, can move blazingly fast into commercial and then retail applications. Think, for example, of how the military, for years and years, has relied on simulations as an important tool to train. The military uses simulations based on the basic educational principle that one of the most effective ways to learn is by doing. Much of their technology is now a part of the video and online games that are so much a part of young people's lives today. But how much are we, in education, incorporating simulations as a part of our materials and techniques?

In this era of accountability, whatever new materials we create must be effective. In the beginning, just like many of us do at home, school systems could get mesmerized by technology. We would buy and use products sometimes just because they were exciting and new. Now we need tools and products that work, and whose effectiveness we can prove. We need tools and products aligned with our goals, our curriculum, and our assessment tools. We need products that have their own assessment tools built-in. Hopefully they will be tools that will give us real-time feedback. (*Baltimore County is piloting some of the very early developments in this arena – including some projects with companies in the audience today.*)

One of the great benefits of technology is that it eases customization – which is exactly what our school system and all school systems need.

At the end of last month, our coordinator of library media services participated in a national think tank on digital textbooks. This think tank was organized by a publisher and included about a dozen hand-picked educators from around the country. I know that they discussed a number of the points that I am mentioning to you today. That think tank is an excellent example of where we need to be headed and how we can get there together.

Now is the time to really stretch our imaginations and our applications. Imagine a virtual classroom lab – not like the many labs we have come to know from the past. (*Not a lab that we would have used in school.*) Our new virtual classroom lab should be able to bring information to life through application and real-time simulation. This should be a place where research and development happen in cooperation with our students, a place where teachers would teach, and where students would use, model, and learn. This should be a place where we could learn from our students how to better teach them because that is why we are here.

Think about this point... we can continue to graduate young people who can recite facts about the past. Or we can begin to graduate more and more young people who are ready and able to engineer the future.

I know which side Baltimore County stands on. We invite YOU to stand with us!