

# Illinois Math and Science Academy

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From the Selected Works of José M. Torres

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## 2015 Convocation

José M. Torres, *Illinois Math and Science Academy*



Available at: [https://works.bepress.com/jose\\_torres/5/](https://works.bepress.com/jose_torres/5/)

Convocation 2015  
17 Aug 2015, Illinois Mathematics and Science Academy, Aurora, Illinois  
“Convocation Remarks”  
Dr. Jose M. Torres, President  
Illinois Mathematics and Science Academy

*“Life is just a minute, only sixty seconds in it. Forced upon you, can’t refuse it, didn’t seek it, didn’t choose it, But it’s up to you to use it. You must suffer if you lose it. Give an account if you abuse it. Just a tiny little minute, But eternity is in it.” ~Dr. Benjamin E. Mays*

### Greetings!

Distinguished guests:

- Board of Trustees: Leslie Juby
- Senator Linda Holmes—please stand to be recognized
- Distinguished Faculty and Staff—Cathy Veal and Founder and President Emerita, Stephanie Pace Marshall
- Class of 2018, welcome to your first Convocation!
- Class of 2017, welcome to your/our second Convocation!
- And Class of 2016, are you in the house? Welcome to your last Convocation as students of the Illinois Mathematics and Science Academy.

### Good morning all!

In light of Dr. Benjamin E. Mays’ quote that I just recited about the fleetingness of time, thank you for taking the time to be here. And students, may this be a reminder to make the most of your time at IMSA, for *“Life is just a minute, only sixty seconds in it. Forced upon you, can’t refuse it, didn’t seek it, didn’t choose it, But it’s up to you to use it. You must suffer if you lose it. Give an account if you abuse it. Just a tiny little minute, But eternity is in it.” ~Dr. Benjamin E. Mays*

I want to begin this morning by sharing with you a deep question that I’ve been asking myself: **What is time?** How many of you know...What is time? How many of you know...What time is it? That’s a far easier question, isn’t it? Is it possible for us to know how to tell time, and to tell each other what time it is, but not to know—fully know—the meaning and nature of time?

Aristotle said, “Time is the most unknown of all unknown things.”

The *American Heritage Dictionary* (4<sup>th</sup> ed., 2000) provides no less than 14 different definitions for “time,” including the one which we’re probably most familiar with, “A nonspatial continuum in which events occur in apparently irreversible succession from the past through the present to the future.” (p. 1809)—an interval separating points on this continuum—*passed the time reading*

Other definitions included: An interval—a span of years—marked by similar events—(*fall on hard times*); A suitable or opportune moment or season—(*time for taking stock of one’s life*); An appointed moment—*her time is near—time for final exams.*

But “exactly what is time?”

Well, I don't know if there's an App for that, but there is a web site for it and you can find it at "exactlywhatistime.com." The website describes its attempts to illuminate the different aspects of time. For example, it investigates various attempts at a definition of time; at the methods of time measurement; and it summarizes the different views of time in philosophy and religion.

It's with great pride that I say to you that, according to this website, "Physics is the only science that explicitly studies time." And so I ask you, "What deep question are **you** asking yourself these days?"

I have been wrestling with the question of time. Perhaps, we could have a session at intercession in January on "exactly what is time" based on philosophy and physics. How many of you would be interested in exploring this topic with me? But, I digress.

What I want to share with you this morning—obviously very briefly—is the importance of taking the time to engage with questions and with one another. I encourage all of us—students, faculty, and staff—to **take the time to share with each other the deep questions that we're asking ourselves.**

In my dissertation, I wrote that "asking questions is a form of active involvement" (p. 114). (I figured I would quote my own dissertation since I don't know that anyone else seems to be doing it!) Rilke, in a letter to a young poet, says, "...have patience with everything unresolved in your heart and try to *love the questions themselves* as if they were locked rooms or books written in a very foreign language." (p. 115, quoted in Torres' Dissertation)

Some of you know that I listen to books while commuting from Elgin to Aurora and back each day. I'm presently in the middle of Brian Greene's, *The Hidden Reality: Parallel Universes and the Deep Laws of the Cosmos*. I'm listening to this fascinating book, understanding about 20-30% of it, but finding my brain expanding just by considering the questions that Greene, a theoretical physicist and string theorist, is posing in his book.

In a section titled, "The Soul of Science" (chapter 7, p. 165), Greene writes, "Where you come down on the multiverse also depends on your view of science's core mandate." He goes on to state, "The actual process of science is a much messier business, one in which asking the right questions is often as important as finding and testing the proposed answers. And the questions aren't floating in some preexisting realm in which the role of science is to pick them off, one by one. Instead, today's questions are often shaped by yesterday's insights. Breakthroughs generally answer some questions but then give rise to a host of others that previously could not have been imagined."

Here's my point—I want us as an IMSA community to wrestle with deep questions. I want us as an IMSA community to turn to each other and to ask one another the questions that we're holding and to live with the questions. I want us as an IMSA community to ask questions that expand our horizons. As philosopher Hans-Georg Gadamer writes, "the essence of the *question* is to open up possibilities and keep them open" (quoted in Torres, p. 114).

Do we have a deal? Share your questions! Love and live the deep questions!

For many years, I've been a big fan of a web site called Edge.org. Since 1998, Edge.org has considered an annual question. I believe that IMSA ought to do the same. Over the past years, the Edge community has considered: What is your dangerous idea? What is the most important invention in the past two thousand years? What scientific idea is ready for retirement? This year's question is, what do you think about machines that think?

Their motto is, "To arrive at the edge of the world's knowledge, seek out the most complex and sophisticated minds, put them in a room together, and have them ask each other the questions they are asking themselves."

Wouldn't it be wonderful and stimulating if we adopted this motto to IMSA? "To arrive at the edge of the world's knowledge, seek out the most talented youth in Illinois, have them live together for three years, and encourage them and support them as they take the time to ask each other the deep questions they are asking themselves."

So what question have you been holding—contemplating—reflecting on? Let's take 30 seconds now to pull-up a deep question that you've been **individually** considering—after all, it's been a busy time for launching the new school year; it's time to give pause. Time! (30 seconds)

The giving of a deep question is a great gift. So, let's give to each other now. Please turn to one another, to the person on your right or on your left and simply share / give that deep question to him or her. Go ahead and do that now. Time! (30 seconds)

I want to encourage us to continue slower, deeper conversations about those questions that matter—and to keep giving the gift of the deep questions to one another. So what question could we, should we ask ourselves as an IMSA **community**?

Last spring, I convened the **Presidential Committee on Social Entrepreneurship**. Membership included faculty, staff, current students, and alumni. The Committee was chaired by Jessica Droste Yagan'90, a social entrepreneur and founder of Impact Engine.

In their report, the Presidential Committee on Social Entrepreneurship stated that (p.1): Our most important takeaway is this: IMSA was born of not only a commitment to "advancing the human condition" but also taking action (building a school) to bring that commitment to life. The ethos of the school and its community is grounded in this starting place, and this combination of finding ways to make the world better and then taking action to bring those to life is the essence of social entrepreneurship. What is needed is not a new initiative or a new vocabulary but rather a renewed embrace of the "action" part of "advancing the human condition."

And so, I would like to pose this question to us as a community, "**What does it mean for IMSA to advance the human condition?**"

I asked faculty and staff this same question at Community Day last Wednesday. Here are a few highlights: The efforts of our students have made a difference across Illinois, the nation and the world—by making academic, intellectual and systemic advances, and also by encouraging positive environmental, political and social changes.

- **Curriculum**: Problem Based Learning curriculum.

- **Networks**: 1871; Student Research Consortium; Illinois Virtual High School; IMSA Digital Repository.
- **Publications**: Engineering Education and Technology Education (chapters in *Handbook Gifted Secondary Education*).
- **Alumni Contribution**: Sam Yagan (SparkNotes, OkCupid); McCool brothers Mosaic and Netscape; Steve Chen (YouTube); Stephanie Hasselbacher (reconstructed the language of the Pamunkey Indians); and today's speaker, Dr. Green, whom you will hear from and more about in a few minutes.

Throughout this year, then, in small and large groups, let's dedicate our time to giving our thoughtful and deep consideration of this question: **What measurable actions would IMSA have to take to "advance the human condition?"**

## Conclusion

I began my remarks this morning by sharing the deep question that I've been asking myself: "Exactly what is time?" Then, I challenged you to love and live the question and share the deep questions that you're asking yourself with others. Finally, I submitted to you that social entrepreneurship is measuring how our actions at IMSA advance the human condition. And asked us as an IMSA community to consider the question of **what measurable actions would IMSA have to take to "advance the human condition?"**

I'd like to conclude with a quote from our founder, Dr. Leon Lederman, titled "**Enrolling in Our Possibility**" and adopted by the Board of Trustees in 1985. "If we do what we know and feel is right, it is bound to happen that among our graduates there will be numbered scientists, engineers, and those who go on to earn degrees in law and letters. There are likely to be those few who *create* new intellectual worlds, cure a dreaded human ailment or in some other way **significantly influence life on our planet**. Our philosophy will be to treat our charges as if each one is capable of this extraordinary achievement. Only one such product will make the effort and expense of this school for its entire duration worthwhile."

So, again welcome Class of 2018 to your first Convocation. And welcome back Class of 2017, Class of 2016 and all faculty and staff to another academic year at IMSA. What will **your** contribution **be** to advancing the human condition?

Thank you!

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Now, I'm pleased to introduce to you for her first Convocation as Principal of the Illinois Mathematics and Science Academy: Dr. Marie Dillon Dahleh.

Please give her a warm IMSA welcome!