



## **Illinois Mathematics and Science Academy**

### **Report of the IMSA Emeriti**

**January – June 2013**

***“...continuing to advance IMSA in significant ways...”***

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Prepared by  
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## **January – June 2013 Report of the IMSA Emeriti**

### **Ms. SUSAN EDDINS, FACULTY EMERITUS 1986-2007**

Council of Presidential Awardees in Mathematics, National Council of Supervisors of Mathematics, Mathematical Association of America, National Council Teachers of Mathematics

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The Mathematics Prototype work with the Charles A. Dana Center was completed in fall 2012. Items developed by the panel of Dana Center Fellows and National Consultants, including Ms. Eddins, were released to the public and received broad-based acclaim for innovation and strength. Those items will continue to provide guidance as multi-state tests are developed this year.

Ms. Eddins is consulting with an online learning company, Think Through Learning, and she is assisting with the development of interactive online lessons aligned to the Common Core State Standards (CCSS). The project's current focus is on expanding student understanding of the CCSS Mathematics standards for grades 3 – Algebra with anticipated expansion to earlier and later material as the project grows. While currently in widest use for remediation of students not yet performing at CCSS grade level, the materials are appropriate for on-grade or advanced work for younger students as well.

Ms. Eddins enjoyed an amazing trip to Antarctica in late 2012 on a small ship that allowed disembarkation to the continent twice daily via zodiacs. Whales, penguins, seals, and birds of all kinds were wonderful and the natural land/seascapes were breathtaking. One highlight occurred while returning to the ship; a pod of 6-7 orcas were spotted and the naturalist positioned the zodiacs so that closer viewing was possible. A NSF Principle Investigator was onboard who was researching the acidification of the ocean and related changes in marine life. Ms. Eddins enjoyed meeting with researchers during her visit to the Palmer Research Station. Trip proceeds supported the costs of a "penguin-cam" that her ship delivered to the Station. She reflects, "This was certainly a life experience for me, and I most heartily recommend this trip to anyone interested in nature in its purest form. I guarantee that it will help you see the planet as something to be saved and cherished."



## January – June 2013 Report of the IMSA Emeriti

### **DR. DAVID WORKMAN, FACULTY EMERITUS 1986-2007**

Sigma Xi, The Scientific Research Society and AAPT, American Association of Physics Teachers

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Although Dr. David Workman was in Florida for the first four months of 2013, he was able to attend and participate in several IMSA events:

- IMSAloquium (5/2/13)
- IMSA Staff Appreciation Event (5/2/13)

Dr. Workman attended several of presentations by IMSA faculty on the work they are doing to fulfill their CADRE responsibilities (6/6/13).

He provided two review sessions for IMSA students who are preparing to take the Physics AP C Examination (6/6/13 – 6/10/13).

Additionally, Dr. Workman had co-authored a paper with several science faculty members from the Mahidol Wittayanusorn School, Thailand and this spring he learned of its publication in the *Thai Journal of Physics*: “Bringing Cosmic Rays into a Scientific Inquiry Classroom” (series 6:2010).

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### **FOUNDING PRESIDENT AND PRESIDENT EMERITA: STEPHANIE PACE MARSHALL, PH.D.**

*Strategic Advancement, Positioning, & Promotion of IMSA, IMSA Alumni, Students, & Staff*

The role of Stephanie Pace Marshall, as President Emerita, is to “Bring IMSA & Its Work with Her”

This work is supported in part by the Discretionary Fund established by the IMSA Fund for the Emerita President.

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**FOUR AREAS OF STRATEGIC ADVANCEMENT AND POSITIONING:** (1) promote and expand awareness and knowledge of IMSA through meetings, targeted conversations and/or presentations with innovative and influential thought and policy leaders to expand their knowledge of IMSA’s work and strategic initiatives; (2) identify and promote opportunities to explore and create potential connections, partnerships and/or alliances focused on innovation, entrepreneurship and talent development; (3) seed, advance and open doors for IMSA’s proactive leadership, “presence & voice at the table”; (4) connect IMSA to critical state, national and international networks and leaders.

### **STRATEGIC INSTITUTIONAL “THINKING AND DESIGNING PARTNER”**

#### **IDENTIFICATION, EXPLORATION AND PROMOTION OF INITIATIVES, PARTNERSHIPS AND NETWORKS**

#### **CONNECTING IMSA TO TRANSFORMATIVE STATE, NATIONAL AND INTERNATIONAL INITIATIVES**

1. **Creation of a New Online Global University:** Dr. Marshall became a founding trustee of a new online global university that will launch publically in fall 2013. Its initial undergraduate offerings will consist of 22 courses; several Master’s degrees and Ph.D. programs have been operational for ten years within Wisdom University, now a part of the new university. The new global university will expand to include a comprehensive undergraduate program, an MBA program and a law school. The unique competency of this university will be its innovative technology platform, its personalized “blended” learning design (online, in-person, collaborative and mentored learning experiences), and its “full spectrum transformational curriculum” designed to develop the “whole mind.” Several global institutions for advanced study will be physically situated. The University’s mission is to nurture creative, ethical, innovative global change agents with the 21<sup>st</sup> Century competencies and habits of mind needed to engage purposefully in positive global change. A potential future initiative is the creation of a global high school; and this could create a partnership opportunity for IMSA as we develop our online presence and program.
2. **Re-imagining the 21<sup>st</sup> Century University: The University of Texas, Brownsville, Texas** Dr. Marshall joined the design team of Cannon Design/Third Teacher (an international design firm, based in Chicago) as a lead advisor and program designer for their work with the University of Texas at Brownsville. The University has a unique and highly challenging location on the border of the United States and Mexico, and seeks to attract students from both countries. The Texas Board of Regents approved extensive expansion plans for the University including the building of an additional campus and the acquisition of a medical school. Dr. Marshall is working with The Cannon Design team and the University President and her team on re-imagining the University’s identity—and teaching and learning design. Their commitment is to “bring to life” a new type of educational learning ecosystem that integrates the K-12 system and the University with the communities on both sides of the border. Innovative STEM learning and teaching offerings will be created in their school of education.

3. The “Aspen Grove Network”—Centers for Inquiry and Imagination created in the spirit of Ubuntu (“we are all connected”), in South Africa: Following a three month “learning journey” meeting with educational leaders in the United States, the United Kingdom and several countries in South Africa, a small cadre of educational visionaries and business leaders from Capetown, South Africa, invited Dr. Marshall to partner with them in conceiving, designing and creating a global network of “Aspen Grove” Centers beginning with the creation of a prototype school on the campus of the West Cape University in Capetown.  
 In Dr. Marshall’s book, *The Power To Transform* (2006), she described learning communities for the future and named them “Aspen Grove Centers for Inquiry and Imagination. She named one of the purposes of Aspen Grove as *“nurturing the potential of each child to wisely advance the human condition...by developing their capacity to discern meaning from patterns, think systematically, take the long view and act with moral purpose”* (16). Given the enormous educational challenges in South Africa, this deeply resonated with educational leaders.  
 Dr. Marshall is a co-founding director of EduQ8 International, and she traveled throughout South Africa in February 2013 as an invited participant in EduQ8 International’s series of exploratory workshops presented to six Eastern and Western Cape universities. EduQ8 International is working with international and South African partners to explore how South Africa might transform their system of public education and conceptualize dynamic learning environments for the future.  
 Cape Town is the 2014 World Design Capital and EduQ8 International is leading the exploration of an educational initiative that considers how design might support community-centered learning through the design and development of prototype schools and learning environments for the future. Joining Dr. Marshall were two principal designers from Cannon Design/The Third Teacher in Chicago.
4. In May 2013, Dr. Marshall and IMSA hosted Dr. Maureen Robinson (dean, faculty of education, Stellenbosch University, South Africa). In June 2013, Dr. Marshall and IMSA hosted Dr. Peet Venter and Dr. Hercules Dreyer, educational leaders from The University of the Free State in Bloemfontein, South Africa. The UFS is exploring a partnering with IMSA in the creation of a STEM Academy.
5. Dr. Marshall attended the annual meeting of 2013 CGI America in Chicago (Clinton Global Initiative, 13-14 June 2013). [http://www.cgiamerica.org/2013/working\\_groups/stem\\_education.asp](http://www.cgiamerica.org/2013/working_groups/stem_education.asp) She was an invited to serve as an expert panelist and facilitator of the STEM working group: “Developing America’s Next Generation of Innovators.” The persistent poor performance of American students in math and science has serious implications for the long-term competitiveness of America’s economy. However, the convergence of government and private sector engagement, popular culture interest, and the development of innovative education technologies represent promising areas of momentum for the science, technology, engineering, and math (STEM) fields. The STEM Working Group focused on developing strategies for attracting and retaining excellent teachers, increasing participation of girls and other underrepresented groups, expanding afterschool STEM programs, and promoting skilled volunteering and mentoring among STEM professionals. As a panelist, Dr. Marshall evaluated the “pitches” the STEM working group advanced for promising initiatives.
6. Free The Children is expanding into the United States and Dr. Marshall was asked to advise the United States leadership team about their strategy for expansion strategy. IMSA students have been involved with Free The Children initiatives since 1997 as part of IMSA’s leadership program. They will now have an opportunity to participate in We Day-U.S.A  
[http://www.cgiamerica.org/2013/working\\_groups/stem\\_education.asp](http://www.cgiamerica.org/2013/working_groups/stem_education.asp)

### **KEYNOTE SPEAKER AND PRESENTER FOR CONFERENCES, SYMPOSIA AND SPECIAL EVENTS**

#### **Conversations With the Future in Mind**

[http://www.chicagoshakes.com/main.taf?p=4,7,6,29&utm\\_source=mail2&utm\\_medium=email&utm\\_campaign=E1213](http://www.chicagoshakes.com/main.taf?p=4,7,6,29&utm_source=mail2&utm_medium=email&utm_campaign=E1213)  
GoldenAppleInvite The Golden Apple Foundation, Chicago Shakespeare Theater and National Lewis University held a two-part series that brought together nationally recognized visionaries for "conversations with the future in mind" about the schools of tomorrow. On March 18 at Chicago Shakespeare Theater on Navy Pier, Dr. James Paul Gee author of *The Anti-Education Era: Creating Smarter Students through Digital Technology* and Dr. Marshall were the two panelists. The conversation was moderated by WBEZ arts and culture journalist Alison Cuddy. As a result of this dialogue, Dr. Marshall will be interviewed for inclusion in a book on educational visionaries.

CISCO GETideas.org Dr. Marshall was invited by CISCO's executive producer of GETideas.org to participate on a panel via Google Hangouts (4/24/13) to explore how school system leaders can build capacity. Cisco's GETideas.org education leadership community is developing resources and tools to assist education leaders in their leadership roles in creating 21<sup>st</sup> Century learning places. Their focus has been on four learning themes: Cultivation of Leadership, Design of Modern Learning Environments, Technology-Driven Innovation, and Future of Digital Content. CISCO has held online conversations, curated content and promoted blog posts from subject matter experts engaged in these conversations.

### **EDUCATIONAL AND BUSINESS CONSULTATIONS**

Insight Labs (Chicago): Dr. Marshall was interviewed by Chicago's Insight Labs' content director, Andrew Benedict-Nelson, as one of nine proven social entrepreneurs. The interviews are published collectively as "The Entrepreneur And..." (<http://www.theinsightlabs.org/interview/the-entrepreneur-and>) and explore the personality types and social roles needed to build more innovative organizations to "save the world." Dr. Marshall's interview is titled "The Prototyper." <http://www.theinsightlabs.org/brief/the-entrepreneur-and-9>

### **SPECIAL EVENTS**

- Gave the introductory and summative remarks during a special presentation by Dr. Eric McLaren titled "Three Simple Rules" (1/12/13) at Aurora University.
- As a trustee of the Society for Science and the Public, attended the 2013 Intel Science Talent Awards. Washington, D.C. (3/12/13)
- Attended ASCD 68<sup>th</sup> Annual Conference & Exhibit Show. Chicago, IL (3/16/13)
- As a trustee of the Lincoln Academy, participated in the Convocation of Lincoln Laureates. Augustana College, Rock Island, IL (4/13/13)
- Attended The Chicago Network Annual Luncheon "Women on the Forefront" (4/19/13) and Annual Dinner (6/12/13). Chicago, IL
- Attended 22<sup>nd</sup> Annual Corporate Governance Conference. Kellogg School of Management, Northwestern University (22-23 Apr 2013)
- Attended TEDxMidwest. Harris Theater, Chicago, IL (2-3 May 2013)
- Attended Lincoln Leadership Prize Dinner awarded to President Bill Clinton. Chicago, IL (5/3/13)
- Served as a global delegate to the 10<sup>th</sup> Anniversary of the KIN Global Conference: "The Next Ten Years" held 29-31 May 2013; at the Kellogg School of Management at Northwestern University.

- Met with First Lady Michelle Obama and several Illinois leaders in business, politics and education, prior to attending a joint luncheon meeting of The Commercial Club of Chicago, The Economic Club of Chicago, The Executives' Club of Chicago and World Business Chicago (4/10/13). The focus of this joint meeting was to better understand the root causes of youth violence and discuss how the business community can help make Chicago safer. A \$50M Fund was created at the request of the Mayor of Chicago.



**ATTRACTING AND SECURING FINANCIAL AND HUMAN RESOURCES TO CREATE AND ADVANCE  
STRATEGIC INITIATIVES: PARTICIPATION IN IMSA AND IMSA FUND EVENTS**

As a member of the Fund Board, Dr. Marshall continues to cultivate donors and potential Fund Board members. She attended the IMSA Great Minds Program featuring IMSA alumnus Sam Yagan (2/25/13) at 1871, Chicago, and other IMSA/IMSA Fund events and meetings:

- In addition, as the Fund Board's liaison, Dr. Marshall attended IMSA Board of Trustees meetings (1/18/13, 5/15/13)
- Met with Dr. Lance Pressl (foundation president, Chicagoland Chamber of Commerce) to discuss a potential IMSA collaboration in the production of a television program that showcases high school students who are innovators and entrepreneurs. Cathy Veal, Jim Gerry and Carl Heine also attended.
- Met with Kevin Willer (CEO, 1871) and Mike Huffstetler (vice president for partnerships, 1871) to discuss IMSA's TALENT Program during the 2012-2013 year and how it can be expanded to other high school students. Cathy Veal and Jim Gerry also attended.
- Attended IMSAloquium (5/2/13)
- Attended 1871 First Anniversary Press Conference (5/3/13)
- Worked with King Harris to cultivate IMSA support (5/17/13)
- IMSA Fund Board dinner and meeting (5/23/13)
- IMSA Graduation at the Paramount Theater, Aurora, IL (6/1/13)
- IMSA Community Learning Day (6/3/13)