25th Anniversary

Report of the IMSA Emeriti
Issue 7 | July-December 2011

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...continuing to advance IMSA in significant ways

prepared by Laurie Sutherland, executive assistant for strategic initiatives
David Barr, administrator emeritus
International Society for Technology in Education, National Educational Technology Standards Project, UNESCO Information Communication Technologies, Leadership Competency Framework for Teachers’ Endorsement Program (ICT-CFT)

During the past two and a half years Dr. Barr has been working with IMSA staff to explore ways of developing “computational thinking” skills among K12 students as well as a plan for integrating those skills into the K12 curriculum.

This work is part of an NSF funded grant program titled Leveraging Thought Leadership for Computational Thinking in the PK-12 Curriculum, which is being implemented jointly by the International Society for Technology in Education (ISTE) and the Computer Science Teachers Association.

Dr. Barr serves on the steering committee designing and implementing the multi-year program. The second phase of the National Science Foundation (NSF) grant was completed this fall with the publication of the Computational Teacher Resources and the Computational Thinking Leadership Toolkit (online). http://www.iste.org/learn/computational-thinking.aspx

Promoting and Expanding Awareness and Knowledge of IMSA
As a member of the National Educational Technology Standards Leadership Team, Dr. Barr promotes and expands awareness of IMSA with several corporate partners (Hewlett Packard, Intel and Adobe) and governmental agencies (UNESCO, U.S. Department of Education, universities and public schools).

Seeding, Advancing and/or Creating Strategic Partnerships (state, national, international): Opening the Doors for IMSA’s “Presence and Voice at the Table”

The National Educational Technology Standards (NETS) are developed through extensive consensus building process involving national forums with educators, collection of online data from around the world, and discussions with professional, non-profit and business organizations.

The focus in 2011 was on a revision of the standards for Technology Facilitator and Technology Leader for NCATE, the certification board for colleges of education. Drafts of the new standards for Technology Director and Technology Coach were submitted to NCATE for approval this fall.

These interactions provide opportunities for bringing IMSA’s voice to the table and for exploring and advancing potential partnerships.
Susan Eddins, faculty emerita
Council of Presidential Awardees in Mathematics, National Council of Supervisors of Mathematics, Mathematical Association of America, National Council Teachers of Mathematics, Mathematics Club of Chicago

Since June Ms. Eddins has served as a national consultant on the Mathematics Prototype Panel at the Charles A. Dana Center at the University of Texas at Austin.

This panel is developing Task Models and Prototype Tasks that will guide the development of the 2014 mathematics assessment of the Common Cores State Standards (CCSS) for over 24 states that make up the Partnership for the Assessment of Readiness for College and Careers (PARCC). Illinois serves as a governing state for the PARCC consortium.

The work is challenging and groundbreaking (and Ms. Eddins thinks very exciting) in that its goal is to find ways to assess deep student understanding in mathematics while limiting the time and cost of large-scale testing and grading. Once completed, these Task Models and Prototype Tasks will serve as guidelines for test development companies who will actually create multiple versions of the assessments.

Illustrative Mathematics Project, University of Arizona

Also connected with her work on CCSS, Ms. Eddins is contributing to the work of the Illustrative Mathematics Project, headquartered at the University of Arizona. This project is dedicated to developing and maintaining a website where teachers and parents can find instructional and sample assessment tasks that exemplify the spirit and depth of the CCSS Mathematics Standards. She encourages everyone to view the site as it develops at http://www.illustrativemathematics.org/.

Because of her involvement with the writing of the CCSS document and her ongoing work on assessment, Ms. Eddins was invited to give the keynote address at this fall’s Illinois Council of Teachers of Mathematics Pre-Conference.

IMSA had a strong presence because Dr. Max McGee was also a presenter at the Pre-Conference.

In November 2011, Mrs. Eddins attended the National Alliance of Presidential Awardees Summit in Arlington, Virginia at the invitation of the National Science Foundation (NSF).

Attendees discussed ways in which Presidential Awardees might participate in the administration’s effort to raise the profile and effectiveness of STEM initiatives in the United States.

In 1998, Ms. Eddins served as part of the initial leadership team that worked with the National Science Foundation to start the National Alliance of Presidential Awardees Associations.

She served as President of that organization for one year and is pleased to see the renewed interest in reviving that alliance.

Ms. Eddins continues to enjoy traveling and looks forward to a month-long tour of South Africa in February 2012.
Edwin Goebel, faculty emeritus
American Society for Microbiology

Dr. Ed Goebel

Dr. Goebel was invited by this year’s Convocation speaker, Dr. Lillian Kao ’89, to attend the 2011 IMSA Convocation and the celebratory luncheon in August 2011. While a student at IMSA, Dr. Kao studied with Dr. Goebel in three classes.

Dr. Lillian Kao ‘89 is associate professor of surgery at the University of Texas Health Science Center at Houston (UT Health). She is vice chief of surgery at Lyndon Baines Johnson General Hospital, vice chairman for quality care for the Department of Surgery, co-director of the Center for Surgical Trials and Evidence-Based Practice, and secretary of the Association for Academic Surgery.
Dr. Workman continues to collaborate with Deb Gerdes (IMSA’s PBL program director) on PBL initiatives. He provided assistance with the Illinois Innovation Talent Program (ILIT) and is contributing to the research and planning for the 2012 Summer Sleuths program.

On July 23, 2011, Dr. Workman reconnected with alumni when he attended the luncheon and activities at IMSA on Alumni Day.

Mahidol Wittayanusorn School (MWIT) and the Institute for the Promotion of Teaching Science and Technology (IPST), Thailand

Mahidol Wittayanusorn School is Thailand’s first residential, specialized secondary school. It annually enrolls 240 students (grades 10-12) and is designed to provide education for these exceptionally gifted and talented students in science and mathematics. It is located on the Salaya Campus of Mahidol University.

Dr. Workman participated in the 2011 Seventh Annual International Student Science Fair that was hosted by the Mahidol Wittayanusorn School. Participating students represented 37 schools from 17 countries.

During the Fair, Dr. Workman gave a presentation on inquiry methods during a teacher workshop and was approached about his interest and availability for a future visit to Malaysia.

MWIT faculty members provided an update about implementing his teaching methodology at MWIT and the progress of IPST schools are making on implementing his methods.

Dr. Workman will support these developing initiatives during an extended visit to Thailand in 2012.

Challenges
His seven-week visit to Thailand began on October 7, 2011, but was shortened by two weeks due to health issues, which he describes as “not serious.”

Flooding—the worst in 50 years—hit the Bangkok area and forced the MWIT School to close for over a month.

Dr. Workman left Thailand by time the flooding reached its full fury; otherwise, his scheduled trips to visit the Princess Chulaborn Schools would have been cancelled.

Problem Based Learning (PBL)
Dr. Workman continues to collaborate with Deb Gerdes (IMSA’s PBL program director) on PBL initiatives. He provided assistance with the Illinois Innovation Talent Program (ILIT) and is contributing to the research and planning for the 2012 Summer Sleuths program.

IMSA Alumni Reunion
On July 23, 2011, Dr. Workman reconnected with alumni when he attended the luncheon and activities at IMSA on Alumni Day.
Meetings, targeted conversations and/or presentations were held with innovative and influential thought and policy leaders (academic, scientific, corporate, and entrepreneurial) to expand their knowledge of IMSA’s work and to explore potential connections, partnerships and/or alliances focused on STEM, innovation and generative learning design.

**Stephanie Pace Marshall, founding president & president emerita**

### Promoting and Expanding Awareness and Knowledge of IMSA at the state, national and global levels

#### State

**Geneca**

(7/15/11) Dr. Marshall met with Mr. Mark Hattas (chairman, co-founder and former CEO, Geneca) to discuss potential opportunities for an IMSA partnership that would leverage and expand CoolHub. Geneca is a custom software development firm that was selected to be on Crain’s Fast 50 list—Chicago’s fastest growing companies. Mr. Hattas is also the founder of Architect the Future—a global collaborative network for accelerating innovation—and was a finalist for Ernst and Young’s 2010 Entrepreneur of the Year Award. He is expanding his civic work to help strengthen the role Chicago plays in the world economy and requested a meeting with Dr. Marshall to share of his thinking and work and explore ways to strategically engage with IMSA. Mr. Jim Gerry and Ms. Catherine Veal have also met with him, and Jim is now working with him to explore an initiative/proposal that will leverage and scale CoolHub for innovation.

**Viewpoints Network and Built In Chicago**

(7/18/11, 12/20/11) At the request of Mr. Matt Moog, founder of Viewpoints Network (a social technology and media company that helps leading retailers develop brand-positioning impact), Dr. Marshall met with Ms. Maria Christopoulos Katris (executive director, Viewpoints Network) who is providing the leadership for Built In Chicago, working with civic and educational organizations to create connections to Chicago’s entrepreneurial, innovation and communities. Built In Chicago is often called the “digital water cooler for Chicago techies.” Dr. Marshall and Ms. Katris discussed potential next steps for strategically engaging Chicago’s innovation and entrepreneurial communities with IMSA initially through TALENT and CoolHub. Mr. Gerry and Dr. Marshall followed-up with a “deeper dive” discussion of convening a small group of entrepreneurs to discuss how they wish to shift the educational conversation in Chicago. Mr. Gerry and Dr. Marshall met with Ms. Katris in mid-December to further the dialogue.

**The Insight Labs**

(7/18/11) Dr. Marshall met with Mr. Jeff Leitner (founder, The Insight Labs). Insight Labs is a Chicago-based “think tank and flash mob” for good that engages creative and influential people in designing a better world. The purpose of the meeting was to brainstorm how a “new” conversation about educational transformation—not reform—might be invited within the innovation and entrepreneurial communities of Chicago. Dr. Marshall shared a brief presentation she gave at a conference of global leaders at the Kellogg School. The discussions with Mr. Hattas, Mr. Moog and others are all part of framing this “new conversation.”

**TEDx Midwest**

As a pillar for Chicago Ideas Week, a TEDx Midwest Conference was held. Dr. Marshall attended this “invitation only” gathering (10/12/11-10/13/11). IMSA’s Robotics Team students and Mr. Jim Gerry were also invited to showcase the projects of the Robotics Team.
(8/12/11) At the request of Dr. Lance Pressl (president Chicagoland Chamber of Commerce Foundation) Mr. Jim Gerry, Dr. Carl Heine and Dr. Marshall met with Mr. Rich Carlson, Mr. James Miles and Mr. Steve Lane from Carlson Environmental, Inc. to discuss the creation of a curriculum “pipeline” program and an interactive online game that nurtures “sustainability thinking” among students and encourages their consideration of sustainability and environmental careers. Mr. Carlson viewed PBL as a potential framework for this online game design, and also met with Ms. Deb Gerdes to discuss it.

(8/24/11) At the request of Jeff Leitner, Dr. Marshall met with Ms. Sarah Ippel (founder & executive director) of the Academy for Global Citizenship (AGC) in Chicago. AGC is a charter elementary school that utilizes the International Baccalaureate curriculum; it opened in 2008 on Chicago’s underserved southwest side and may expand over time to include a high school component. AGC’s mission is to empower children to become active global citizens by positively impacting their community and the world beyond. Ms. Ippel and Dr. Marshall discussed AGC’s vision for educational transformation, its curricular design, pedagogy, “brand,” and the need for a demonstrable trajectory of sustained success. Dr. Marshall introduced her to Ms. Linsey Crowninshield who expressed interest in bringing a group of IMSA students to the school.

The Chicago Architecture Foundation is designing its next five year strategic plan and is inviting “thought leaders” and innovators in Chicago to help inform their strategic initiative. C.A.F. is the seventh largest cultural institution in Chicago and their goal is to “inspire everyone to participate in building great communities.” They discussed with Dr. Marshall, their strategic goal for education: “offering learning initiatives that engage youth in explorations of architecture, infrastructure, cities and design in order to gain transferable skills and take early steps in becoming contributors to tomorrow's communities.” Dr. Marshall proposed a design challenge for youth to develop the design principles and protocol, and create the prototype for a city that would be “child honoring”—that would ignite and nurture innovation and would enable every child to live in healthy, empowering and whole communities.

New Publication

At the invitation of Le Trung (principal, architect and designer with OWP/Cannon Design’s Education Initiatives) Dr. Marshall has joined the advisory team of The Third Teacher—OWP/Cannon Design’s educational consultancy. In this role she will create and lead a team for STEM curriculum and pedagogical design for the first residential high school/two-year college (grades 9-14) for Native American students talented and motivated in STEM and who seek careers in STEM. This institute will be located on First Nation land in the Black Hills, South Dakota and is being called “a blueprint for mankind” by the 9 tribes that have come together to create it. Dr. Marshall asked Mr. Jim Gerry to be a team member.

In August Dr. Marshall received certification from the Human System Dynamics Institute (a global training institute) whose mission is to "Build adaptive capacity to help individuals, organizations, and communities respond to unpredictable change in complex environments." She is now part of an international cadre of HSD certified professionals focused on large-scale change initiatives in complex systems.

On September 19, 2011, Dr. Marshall met with founders, staff and researchers during her visit to Project A.L.S. in New York City and attended a dinner that was hosted by Project A.L.S. Board Chairs to launch The McLaren Family Fellowship at Project A.L.S. The dinner was attended by comedian Ben Stiller and his wife, Christine. Dr. Marshall invited several New York, Boston and D.C. based IMSA alumni to join her and seven alumni attended. She talked about IMSA, Dr. McLaren and his family, and the IMSA Project A.L.S. partnership. The mission of Project A.L.S. is to recruit the world’s best research scientists and clinicians to work together toward an understanding of and the first effective treatments for A.L.S. Project A.L.S. was honored to create the McLaren Family Fellowship and dedicated the dollars raised in June 2011 to this Fellowship.

Dr. Marshall attended the invitation-only Inaugural Gathering of ConvergeUS on October 5-6, 2011 at Cavallo Point, California. This gathering brought together subject matter experts, scientists, engineers, social media specialists, and technologists to develop a year-long work plan (the “Technology Innovation Blueprint”) for achieving game-changing results on specific problems in areas including STEM Education. Co-chairs of ConvergeUS were Rey Ramsey (CEO, TechNet) and Biz Stone (Co-Founder, Twitter and Obvious) and attendees included Kim Polese (former CEO, SpikeSource), Aneesh Chopra (U.S. Chief Technology Officer) and Carolyn J. Lukensmeyer (President and Founder, AmericaSpeaks). Dr. Marshall was asked to serve as a reviewer for the STEM Innovation Hub proposal being created by the Silicon Valley Foundation for the area’s schools.

Attended the annual conference of the Cleveland Conference (12/2/11 – 12/3/11), an invitational “off the record” annual gathering of members—national educational leaders and policy-makers.
**Global**

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<th>Kisaruni Girls High School</th>
<th>Wisdom University</th>
<th>The Brightest Stars Foundation</th>
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<td>Masai Mara region of Kenya (7/1/11-7/12/11) Dr. Marshall was invited to Kenya for the dedication of Kisaruni Girls High School that opened in January 2011. Kisaruni is an integral part of Free The Children’s Adopt-a-Village program in Kenyan communities, and has united the Maasai and Kipsigis peoples around the education of their daughters. Kisaruni is the first residential high school for girls in this remote and rural region of Kenya. As a member of the Clinton Global Initiative, the building of this secondary school has also served (since 2007) as Dr. Marshall’s “Commitment To Action” for addressing the global challenge of educating girls. During her time in Kenya, she met with the faculty, the principal and all the girls. Dr. Marshall will be working with Ms. Deb Gerdes in creating opportunities for a potential partnership, since the principal and science staff are very interested in PBL and it applications to solving local challenges.</td>
<td>(7/20/11) Dr. Jim Garrison (founder and president, State of the World Forum and president, Wisdom University) and Dr. Teresa Collins (director, Wisdom University’s Global Learning Center) asked Dr. Marshall to review Wisdom University’s “full spectrum transformational learning” initiative. Dr. Garrison also asked Dr. Marshall to serve on the Board of Directors of Wisdom University, and she joined in November 2011. Wisdom University is a global learning community dedicated to catalyzing personal and professional transformation within the context of granting graduate degrees (MA, PhD). It was founded in 2005 and is grounded in the integration of discernment and compassion within a highly differentiated pedagogy, learning methodology and curricular focus designed to nurture the whole person. Wisdom University believes that the transformation of education resides in the convergence and confluence of multiple learning pathways and disciplines—face-to-face learning, extended onsite experiences, immersive practice and online learning. Wisdom University’s “full spectrum” learning can be a model and prototype for educators.</td>
<td>(9/7/11) Continued conversations with NASA engineer Ms. Camille Alleyne (founder and president, The Brightest Stars Foundation) to discuss progress on the design and building of a STEM academy for girls in Nairobi, Kenya and designing the Academy’s curricular framework and learning experiences. Dr. Marshall serves on the Foundation’s international advisory board.</td>
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<td>Dr. Marshall was a keynoter and presenter for Images of Voices of Hope's Annual World Summit from September 15–18, 2011 in Haines Falls, New York. Her remarks were titled &quot;Mind-Shaping Is World-Shaping&quot; and focused on the media's role in shaping thinking for sustainable democracy. This event brought together more than 100 international media creators—magazine and newspaper journalists (i.e., Miami Herald, Boston Globe), editors, authors, game designers, war correspondents, photographers, journalism students, documentary film producers—from the U.S., Canada, Denmark, Iceland, Netherlands, Singapore and Brazil for dialogues around how the media can be used as an agent for world benefit.</td>
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Dr. Marshall attended the annual Renaissance conference in Charleston, South Carolina (12/28/11-1/1/12). This invitational retreat was founded in 1981 by Linda and Philip Lader, the former U.S. Ambassador to the Court of St. James's (the royal court of the United Kingdom). Dr. Marshall served on several education panels.

Dr. Marshall attended the 7th annual meeting for members of the Clinton Global Initiative (CGI) New York City. CGI’s annual meeting brings together heads of state, government and business leaders, scholars, and NGO leaders. Participants analyze pressing global challenges, discuss the most effective solutions, and build lasting partnerships that enable them to create positive social change. This year’s CGI agenda was organized around three topics: Jobs, Jobs, Jobs; Sustainable Consumption; and Girls & Women. Dr. Marshall made the following contacts: (1) Peter and Jennifer Buffet (son of Warren Buffet) and their NOVO Foundation focused on social, emotional learning and systems transformation; (2) Carlos Dominguez (senior vice president, office of the chairman & CEO, CISCO). Carlos will come to IMSA to meet with Dr. Marshall and other staff to discuss potential collaborations; (3) John Kao (chairman, Institute for Large Scale Innovation) Dr. Marshall had met with Mr. Kao in San Francisco previously. He is interested in the “bus tour” and CoolHub followup; (4) Kuman Garg (senior advisor, office of science and technology policy, Executive Office of the President). Mr. Kumar asked Dr. Marshall to follow-up with him on innovation and entrepreneurship; (5) Jennifer Weigel (daughter of the late Tim Weigel, Chicago Tribune University). Ms. Weigel writes stories for the Chicago Tribune and Dr. Marshall invited her to come to IMSA. Mrs. Brenda Sotern will follow-up.

Founded in 1922, SSP is dedicated to the public’s engagement in scientific research and education. Dr. Marshall has been a trustee of SSP for three years and was just re-elected for another term. SSP is best known for its leadership in conducting the INTEL Science Talent Search competition, the INTEL International Science and Engineering Fair, and the Broadcom MASTERS Middle School Competition. SSP is also the publisher of Science News and Science News For Kids and works closely with the White House and the Obama administration on STEM education initiatives. Dr. Bruce Alberts (former president, National Academy of Sciences) was Chair of SSP’s Blueprint for the Future. President Marincola came to IMSA (9/7/11) to meet with Dr. Marshall. Dr. Marshall attended the Board meeting (10/11/11-10/12/11).

(10/20/11-10/21/11) Dr. Marshall serves as a member and advisor to KIN Global (Kellogg Innovation Network), a diverse group of visionary world leaders (corporate, nonprofit and academic) that convenes annually at the Kellogg School, Northwestern University to discuss and create strategies for building global prosperity and turning innovation into action.

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### Participation in IMSA & IMSA Fund Events that Support IMSA Students & Staff Initiatives

#### IMSA Fund Board and Advancement Staff

Multiple meetings with Ms. Catherine Veal, Mr. John Hoesley, Mr. Tom Walter to prepare for IMSA Fund Board meetings, committee meetings and endowment team meetings; Fund Board meeting (10/3/11); Executive Committee meetings (7/13/11, 9/30/11, 11/21/11); Finance Committee meeting (9/8/11); Endowment Team meeting (11/2/11, 11/21/11); fundraising training planning session with Ms. Barbara Graham (11/2/11); Governance and Nominating Committee (11/14/11); Endowment strategy planning with Mr. John Hoesley and Mr. Paul Milano (12/6/11); meeting with Mr. Mark Hattas (12/6/11); discussions with Ms. Chelsey Hopper (Fund Board’s Nominating and Governance Committee) re: potential candidates for Fund Board; prepared annual Fund solicitation letters; achieved Green Level in the Kaleidoscope Society ($100,000+).

#### IMSA Board of Trustees

Dr. Marshall serves as the Fund Board’s liaison and provides written & oral reports to the Trustees. She attended IMSA Board of Trustees meetings (7/13/11, 9/14/11).

#### Staff and Student Events

Alumni Dinner (7/22/11), Alumni Luncheon (7/23/11), 20 Year Reunion, Class of 1991 (7/23/11); IMSA Convocation and Convocation Luncheon (8/18/11); IMSA’s 25th Birthday Celebration; brief retrospective of IMSA’s opening (9/7/11); OECD meeting at IMSA: “How to Prepare Our Workforce for a Global Economy” (10/14/11); IMSA Charette on designing our online presence and programs (12/2/11-12/3/11).

#### Meetings with IMSA Staff, Students and Alumni

Ongoing meetings with Catherine Veal, Jim Gerry, Carl Heine, Robert Hernandez, Margaret Hernandez, Eric McLaren, Paul Milano; Max McGee: Strategic updates and communications, IMSA Fund, endowment, and key stakeholder relationships and initiatives; Catherine Veal: IMSA/IMSA Fund strategic integration; Harris Family Foundation Gift; IMSA25 Gala; Catherine Veal, Jane St. Pierre, Brenda Sotern: announcement of $1M Endowment pledge to the SPM Endowment to Ignite Innovation; Jim Gerry, Catherine Veal: CoolHub International Advisory Board; Julie Christman: potential grant application to the Lloyd A. Fry Foundation; Director of Development: 2 candidate interviews; Britta McKenna, Megan Plain: IMSA25; Brenda Sotern: Jennifer Weigel introductions; Paula Garrett, Jean Bigger, Laurie Sutherland: IRC Digital Commons, Strategy 5; Christopher Kolar: Logic Models; Mary Spreitzer: introductions; Deb Gerdes: Kisaruni Girls High School and PBL conversation; Alan Shramuk (IMSA student): Constructivist Learning; Miss Irene Jiang (IMSA student): IMSA25 yearbook interview; Dr. Eric McLaren: surprise birthday party; Ms. Sarah Scott (alumna): designing sacred spaces for sustainability.