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SIGCSE News in Brief

As July comes to a close, let us wish you all a successful and engaging new academic year. The August Bulletin includes reports out from two conferences in 2015, SIGCSE symposium and ITiCSE (p. 2) as well as calls to attend the inaugural RESPECT conference (p. 7) in Charlotte, NC and ICER (p. 4) in Omaha, Nebraska. We hope to see you at one or both of these conferences!

SIGCSE has a number of initiatives to help support and grow the community. We preview the recent awardees of the SIGCSE Special Project Grants (p. 7) and introduce you to some new SIGCSE Symposium attendees who received travel grants this year (p. 8). Susan Rodger also provides the chair’s report to highlight some of the other things that have happened this past year (p. 6).

For our member spotlight we interview Simon from the University of Newcastle who sometimes acts as a stunt double for Santa Claus (and, yes, Simon is his full name).

Good luck submitting your papers, special presentation, panel and/or workshop submission for the 2016 SIGCSE symposium due August 28, 2015.

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SIGCSE Conference Report

By Adrienne Decker and Kurt Eiselt, SIGCSE 2015 co-Chairs

SIGCSE 2015, held in Kansas City March 4-7, brought together 1,285 computer science educators. Keynote speaker Jessica Hodgins, Vice President of Disney Research and Professor at Carnegie Mellon University, opened the conference talking about blending the creative and the technical in courses at Carnegie Mellon. Keith Hampton, Associate Professor at Rutgers University, closed SIGCSE with the luncheon talk about his work on the impact of social media on its users and its ability to keep us connected.

The commitment of our members was recognized via the SIGCSE Awards. The SIGCSE Award for Lifetime Service to the Computer Science Education Community was given to Frank Young who shared his contributions to SIGCSE at the First Timers' Lunch and encouraged our newest members to get involved. The SIGCSE Award for Outstanding Contribution to Computer Science Education went to Mark Allen Weiss who gave a plenary talk about the past, present, and future of data structures.

Conference attendees could choose many different sessions including pre-symposium events, workshops, panels, Birds of a Feathers, and paper presentations including the Best Paper, *Structuring Flipped Classes with Lightweight Teams and Gamification* by Celine Latulipe, Bruce Long, and Carlos Seminario, University of North Carolina at Charlotte. We offered two new sessions this year, demos and lightning talks, in a commitment to evolve.

We hope to see you as we don our blue suede shoes and head to Memphis, Tennessee on March 2-5th, 2016 for SIGCSE 2016!

ITiCSE Conference Report

By Valentina Dagienė, Conference Chair

The 20th Annual ITiCSE, held in Vilnius, Lithuania is over and mixed feelings are spread around attendees – the cheeriness of productively spending several days together and the nostalgia for leaving both the known and the newly made friends.

Although we didn't formally celebrate the two decade jubilee of ITiCSE, many small details from this year's ITiCSE still stand out: the venue in the Parliament (named Seimas) buildings of the Republic of Lithuania, the organ music at the Vilnius University Church and possibility to lift to the Bell Tower for a glance at the Vilnius Old Town from his heart, the mini-concert by the best Youth Choir from Vienna, the conference dinner in the recently reconstructed Palace-Museum of the Grand Dukes of Lithuania, one of the most famous in Europe in 15-17th centuries.

The most important, though, is our research work: ITiCSE is a truly international conference, with submissions and presentations from a wide variety of countries: the authors of the 54 accepted research papers came from 17 different countries on five continents.

ITiCSE has a long tradition with its working groups and there were seven this year. Seven is a fortunate number - it is seen as the world's favourite number - and it appears across many cultures and religions. SIGCSE Chair Susan H. Rodger wrote in one of her emails: "We will look at numbers, but I believe this was the largest number of people in working groups and with talking to many of them they had a great experience being in such a group".

We congratulate, once again, the recipients of the ITiCSE 2015 Best Paper award, David Insa and Josep Silva both from the

University Politecnica de Valencia in Spain for their paper “*Semi-Automatic Assessment of Unrestrained Java Code: A Library, a DSL, and a Workbench to Assess Exams and Exercises*”. The authors presented an open source tool for semi-automatic marking of Java source code from student exams/assignments, based on the content of the code and output. The general idea for this assessment tool is to compile the students’ code, execute it with a predetermined set of inputs, and compare the outputs with the expected results. The tool was tested in a university environment to assess 380 Java based programming examinations.

As always thanks to keynote speakers, Maciej M. Syslo from Nicolaus Copernicus University and University of Wrocław, Poland and Mordechai (Moti) Ben-Ari from the Weizmann Institute of Science, Israel. They gave impressive talks on algorithmic and computational thinking as a way to teach computing for all students and defended programming as the fundamental activity of CS.



Maciej Syslo with the ITiCSE '99 poster from Poland
Photo credit: Rimantas Zakauskas

Last, but not least, particular thanks are due to all who made the conference in Vilnius a truly enjoyable event. I look forward to all of us meeting at ITiCSE 2016 in Arequipa, Peru next summer!

ICER Preview – Join us in Omaha

By Brian Dorn, Quintin Cutts, and Judy Sheard,
ICER Co-Chairs

We are thrilled to welcome our colleagues to ICER 2015 in Omaha, Nebraska!

The youngest of the SIGCSE-sponsored conferences, the ACM International Computing Education Research (ICER), is just beginning its second decade, but it has already developed a unique character. This year is shaping up to be another exciting conference, filled with late-breaking computing education research results, and our host city has a lot to offer attendees.

ICER'15 will take place August 9-13th in Omaha. When not taking part in research discussions, international and US attendees will find a wide variety of attractions in the city. Omaha's roots date back to the 1850s during rapid westward expansion and pioneer settlement of the Great Plains. The city has long played a pivotal role in American railroading history and today the city is the proud home to 5 Fortune 500 companies with a growing presence in the information technology sector.

Attendees can enjoy a wonderful collection of museums that celebrate art, pioneer life, jazz music, railroading, and aerospace—in fact, the banquet will take place in the historic Durham Museum. Animal lovers won't want to miss the Henry Doorly Zoo which was named TripAdvisor's 2014 "Best Zoo in the World."

Those with green thumbs can enjoy both local prairie plant life and more exotic species at Lauritzen Gardens. Of course, as the home to the College World Series (CWS) since 1950, Omaha is a baseball town. Even though the CWS has just

wrapped up, you can still take in a game at Werner Park and see Omaha's Triple-A team, the Storm Chasers, play. Tickets can be purchased ahead of time at <http://omaha.stormchasers.milb.com/>.

ICER conference sessions will take place on the campus of the University of Nebraska at Omaha. We have assembled a diverse international program of 25 research papers, 10 lightning talks, and over 20 posters (which are a new category this year) that address a wide variety of topics. In addition, 20 Ph.D. students will take part in the doctoral consortium and present their work to attendees. This year we saw a spectacular increase in participation across all submission categories and we anticipate this will be the largest ICER yet! Even with this growth, we are pleased to continue ICER's single-track conference format which provides ample time for audience discussion of each paper.

ICER's keynote speaker this year is Dr. Jim Spohrer, who directs IBM's Global University Programs and leads IBM's Cognitive Systems Institute. In 1988 he co-edited the seminal volume *Studying the Novice Programmer* with Elliott Soloway. His keynote talk, "Empowering Makers in the Cognitive Era," will explore this early research and more recent findings in the context of current efforts to democratize tools for self-expression and digital content production.

For schedule and registration information, visit: <http://icer.hosting.acm.org>. We look forward to seeing you this August!



MEMBER SPOTLIGHT

In this feature of the Bulletin, we highlight recent accomplishments of our members. In this issue, Bulletin co-editor David Kauchak interviewed Simon at the University of Newcastle.



Photo credit: Judy Sheard

DK: How did you first get involved with CS Education and the SIGCSE community?

S: Early in my career I wasn't a researcher because I wasn't particularly interested in what my colleagues were working on. With limited travel funding, I used to present teaching-related papers at ACE, the Australasian Computing Education Conference. Then Sally Fincher, Marian Petre, Raymond Lister, and Anthony Robins introduced computing education research to many in Australia and New Zealand with BRACE, and I was hooked. Since then, often guided by Raymond Lister, I've become an ICER groupie and an ITiCSE regular.

DK: What have you been working on recently?

Three main projects, I guess. The emergence of the computing education research community, principally through its literature. Raymond Lister's BABELnot

project, looking into many aspects of programming assessment. And recently, an academic integrity project: the way most institutions teach their students about academic integrity has far more to do with essays than with assessments in computing and other non-essay disciplines, and that's not helpful.

DK: What do you think is the most pressing issue(s) facing CS today?

S: Teaching programming is a perennial problem. While there isn't agreement on the reasons, there does seem to be broad agreement that programming is hard for many students to learn. Much good work has been done to address this problem, but nobody has found the silver bullet, which probably doesn't exist. It would also be nice if we could persuade students to want to learn, for example by doing tasks that aren't worth marks, instead of just wanting the piece of paper that they see as the outcome of their studies.

DK: You've been involved with the CS Ed community for a long time. How have you seen things change over that time?

S: On the negative side, the low numbers of women students (I remember when they were close to 50% in my classes) and the increase in the number of people in higher education. In Australia at least, the government is encouraging more and more school leavers to proceed to university. It follows that on average, the overall intake is academically less capable. Yet we are expected to pass about the same proportion of students, without sacrificing standards. That sequence is surely flawed.

On the positive side, it is fantastic to see the increasing value being placed upon research in computing education, and the many wonderful advances in that area.

DK: Ok. I have to ask. You don't follow traditional convention with a first and last name. I'd love to know why if you don't mind sharing.

S: When I was an undergraduate, the university library changed its system so that when borrowing a book you had to write your surname on a slip in the back. My surname without my first name just didn't look right to me, so I worked out that if my first name were my only name, I could write it on the slips even though it wouldn't technically be a surname. So I legally dropped my last three names. Of course there's a lot more to it than that, but it'll do as a brief explanation.

I now enjoy computer-based forms that insist on at least two names. I won't put Simon in both fields, because people will think my name's Simon Simon. Using a different first name for each form worked for a while, but has caused me serious problems, so I decided that I had to come up with a name that I could use consistently without having people think it was my real name. The answer was obvious, and I now often fill in forms as Simple Simon.

DK: Tell us something interesting about yourself.

S: Notwithstanding the amusing fantasies of my Finnish colleagues, Santa Claus comes from Australia, and I am he. Being fat, bearded, and jolly, I'm far better at it than the many folk who have to fake all three of those attributes. On Christmas day, having finished my duties for the year, I cut my beard back to virtually nothing, then let it grow again all year. I'm not interested in either the religious or the commercial reason for Christmas, but I keep it up because I love bringing joy to people, especially children. My personal

challenge in the role is never to lie to children, beyond actually being this fictitious character. So, for example, when a child once asked me how my reindeer fly, I racked my brains before answering “They fly by a very special power – called the power of imagination.”



Simon as Santa with Valentina Dagiéné
Photo credit: Camera of Valentine Dagiéné

Some people find it interesting that I dress the way I do, in shorts, a polo shirt, and what Americans call flip-flops, though I take much pleasure in calling them by their Australian name of thongs – and in truth I prefer bare feet. I grew up unable to afford ‘normal’ clothes, and while I can’t say I don’t care what other people think when they see me, I have the strength not to sacrifice my own physical comfort for the sake of their emotional comfort.

DK: Anything else you’d like to add?

S: It’s great to have co-published with well over 100 different authors. It’s nice to have become an old man that others are prepared to tap for his experience. Life is good.

SIGCSE Chair’s report

By Susan Rodger, SIGCSE Board Chair

Each year the SIGCSE Chair writes an annual report to submit to ACM. The current report is under development for July 2014-June 2015. Below are excerpts from the report. The complete report will be posted at sigcse.org when it is finalized.

1. Awards that were given out

The SIGCSE Award for Outstanding Contribution to Computer Science Education was presented to Mark Allen Weiss from Florida International University for authoring textbooks on introductory programming and data structures that have had a profound impact on generations of students, and for dedicated service contributions regarding the Advanced Placement Computer Science program.

The SIGCSE Award for Lifetime Service to the Computer Science Education Community was presented to Frank Young, Emeritus Professor of Rose-Hulman Institute, for dedicated service to the computing education community. He had many contributions to SIGCSE including co-chairing the Symposium, leading efforts for many years with the registration system and most recently spent many years as the SIGCSE Information Co-Director.

2. Significant papers on new areas that were published in proceedings

ICER 2014 had two best paper awards. The Chair’s award is selected by the organizing committee and was presented to: Leo Porter, Daniel Zingaro and Raymond Lister, *Predicting student success using the fine grain clicker*. The ICER 2014 John Henry Award is selected by the conference delegates and was presented to: Josh Tenenber and Yifat Ben-David Kolikant, *Computer*

programs, dialogicality and intentionality. The best paper selected at ITiCSE 2015 was: David Insa and Josep Silva, *Semi-Automatic Assessment of Unrestrained Java Code: A Library, a DSL, and a Workbench to Assess Exams and Exercises.*

The best paper selected at SIGCSE 2015 was: Celine Latulipe, N. Bruce Long, and Carlos E. Seminario, *Structuring Flipped Classes with Lightweight Teams and Gamification.*

3. Innovative programs which provide service to some part of your technical community

We restarted a Department Chair's workshop for future or present Department Chairs that ran on March 11, 2015, the day before the SIGCSE Symposium. The last such workshop was held in 2011. We plan to run this workshop every other year. The SIGCSE 2015 Chair's workshop had five presenters and 16 attendees.

SIGCSE Special Projects Fund provides grants up to \$5,000 per project and has calls in November and May. The November call funded three projects for a total of \$10,000. One award was made to Steve Wolfman and William Byrd to make video blogs about computer science education. A second award was made to Yifat Kolikant, Sally Fincher and Josh Tenenberg for adapting computer science education to the internet age. A third award was made to Alessio Gaspar and Amruth Kumar to assess the potential of Parsons Puzzles with learning programming. The May call funded two projects for a total of \$8,277. See more details about the May projects below (p. 8).

The 2015 SIGCSE Symposium held twenty-eight three-hour workshops for

professional development. In addition, the SIGCSE Symposium provided the meeting space for nine pre-symposium events for educators that included a CRA-W career mentoring workshop, LittleFe Build-Out, GENI in your classroom, Cyber Education Steering Committee meeting, Department Chair's Roundtable, Git and Github, CS Teaching Tips, Teaching to Diversity in Computer Science and an ACM SIGCAS meeting.

ITiCSE 2015 had seven working groups on the topics of Global Software Engineering Courses, Educational Data Mining, CS Education in K-12 Schools, key concepts in K-9 CS education, a repository for high school computer science questions, designing an Information Technology Curriculum Framework, and a Taxonomy of Computing Education Terminology.

A Doctoral Consortium was held on August 10, 2014, the day before ICER 2014, and attended by seventeen graduate students in computer science education with travel support from SIGCSE. These students present their work and get feedback from senior researchers in the field.

4. Events or programs that broadened participation

ITiCSE conferences have always been in or near Europe. ITiCSE 2016 will be in a different geographical location, in Peru. With locating it in South America we hope to grow ITiCSE and increase the number of delegates from this region.

In 2013, SIGCSE started a Travel Grant Program for faculty who have never attended the Symposium. In 2015, six awards were made. Three of the awardees were from the United States and three were from Jamaica, Albania and the United Kingdom. See more details below (p. 9).

SIGCSE BP: Broadening Participation gets RESPECT

By Tiffany Barnes, SIGCSE Board member

In 2005, Jan Cuny started the “Broadening Participation in Computing” (BPC) program at the U.S. National Science Foundation with a thought-provoking question: do we need different approaches to engage diverse people in computing? The answer might seem to be yes – with alliances including the National Center for Women & Information Technology (NCWIT), the Computing Alliance for Hispanic-Serving Institutions (CAHSI), AccessComputing (for people with disabilities), and the Institute for African American Mentoring in Computer Sciences (IAAMCS). On the other hand, STARS builds university leadership to serve local communities, while Expanding Computing Education Pathways (ECEP) works to build capacity in schools for teaching computing, and Into the Loop engages deeply with high schools in Los Angeles to integrate rigorous computing courses into this highly diverse district.

These alliances have complex stories to tell about supporting students from underrepresented groups. Finally, we have established a professional community where these stories can be told. The IEEE Special Technical Committee on Broadening Participation announces the first annual RESPECT conference, with the theme “10 years of RESPECT for diversity,” to be held August 14, 2015 in Charlotte, NC, USA. This inclusive event features a panel on rising CS enrollments, a fireside chat with BPC alliance leaders, and a keynote on “Accessibility and Beyond” by Richard Ladner. Early registration ends July 20 at <http://respect2015.stcbp.org>.

SIGCSE Special Project Grants Awards

By Judy Sheard, SIGCSE Board Member

The SIGCSE Board is pleased to announce SIGCSE Special Projects grant awards from the May 2015 round.

OnRamp: An Interactive Learning Portal for Parallel Computing Environments, Samantha Foley and Joshua Hursey, University of Wisconsin-La Crosse.

OnRamp to Parallel Computing will provide a web-based portal designed to coach users through the often unfamiliar and complex system software, programming interfaces, and tools to roll out parallel computing environments. The primary goal of the web portal is to assist users who are new to parallel computing to explore parallel computing concepts and common software tools in a layered and self-guided approach. The target audience of the portal will be teachers of undergraduate parallel computing.

Interactive tutorials will teach faculty and students about the software ecosystem and parallel computing while allowing them to launch parallel applications from day one. As users become more comfortable with running parallel applications in parallel computing environments, the OnRamp portal will transform into a reference guide.

The awardees will share their work with the SIGCSE community and solicit feedback via an online survey to gauge perceptions of the effectiveness of the portal, current implementation, and desired features.

Low-cost Adaptation of Lego Serious Play to Teach Software Engineering, Stanislav Kurkovsky, Central Connecticut State University.

For this project Dr. Kurkovsky will adapt the principles of Lego Serious Play (LSP) for easy and cost-effective application in software engineering and related courses in order to promote active learning, boost creativity, and improve student engagement with the course material.

The aim is to produce easily adoptable and openly available curricular materials utilizing the principles of LSP, which will be available to educators for free and require no additional training. Low cost Lego options will be investigated. New and existing software engineering case studies will be tested with these Lego sets.

The resulting curricular materials will be posted online, accompanied by detailed scripts, worksheets, grading rubrics, timing guidelines, practical tips and photos. Workshops will be offered to train faculty interesting in adopting these materials.

Special Project Grants of up to US\$5000 are available to SIGCSE members to support projects that will bring some clear benefit to the computing education community in the form of new knowledge, a resource, or good practice in learning, teaching, or assessment. The next deadline for submissions is November 15, 2015.

More information is available at <http://sigcse.org/programs/special>. Questions are welcome and should be sent to apply@sigcse.org.

Travel Fund Awardees

By Amber Settle, SIGCSE Board Member

The SIGCSE Board is pleased to share the results of the 2015 Travel Grant Program that provides up to \$500 in travel support to Faculty who have never attended the SIGCSE symposium. This cycle there were ten applications, from which six awards were given. All six award recipients attended the 2015 Symposium.

Daniel Fokum is a lecturer at the University of the West Indies in Jamaica, and he teaches computer networking, databases, probability, and introduction to programming. Daniel enjoyed the paper presentations at SIGCSE the most.



Daniel Fokum
Photo credit: Heather Amthauer

Dimitris Papamichail is an assistant professor at the College of New Jersey, and his teaching interests involve mostly theoretical courses as well as ways to make the content in these classes more engaging. Dimitris just joined a liberal arts college after years in large research universities, so the Symposium served as an impactful introduction to computer science education research.



Dimitris Papamichael
Photo credit: Danielle Leng

Yu Sun is an assistant professor at California State Polytechnic University, Pomona and focuses on teaching software engineering, cloud computing, and mobile computing. Yu felt that the conference enriched his experience and vision on computer science education as a first-year faculty.



Yu Sun
Photo credit: Fangyan Zhang

Courtney Starrett was at Winthrop University and will be joining Seton Hall University in the fall. Courtney teaches in fine and digital art and related most to the keynote on the "Hybrid Student" that Jessica Hodgins presented. She reported that the more time she spent speaking with people from the field of computer science, the more she realized how similar her creative process is to the processes of those in CS.



Courtney Starrett
Photo credit: Scott Starrett

Narasimha Vajjhala is an assistant professor at The University of New York Tirana in Albania with over twelve years of teaching experience. Narasimha reported that the Symposium offered numerous

networking opportunities with international faculty members teaching and working in different countries and that some of these opportunities can develop into long-term research collaborations.



Narasimha Vajjhala

Mark Zarb is an associate lecturer at Robert Gordon University in the UK. Mark reported that as a first-year coordinator in his school, the conference was a great way not only to disseminate research on learning and teaching, but also to connect with other academics and share ideas from a pastoral perspective.



Mark Zarb
Photo credit: Pamela Zarb

The deadline for the next round of applications is October 15, 2015, and the application form will be posted to the Travel Grant page by August 30, 2015:
<http://sigcse.org/travelGrant>.

Please encourage faculty at your institution who could benefit from Symposium attendance to apply.

SIGCSE Computer Science Education Awards

By Paul Tymann, SIGCSE Board Member

SIGCSE has a tradition of recognizing individuals who have made outstanding contributions to computer science education. The first SIGCSE Award for Outstanding Contribution to Computer Science Education was given to William Atchison in 1981 for chairing the committee that produced the curriculum '68 report. Last year the award was given to Mark Allen Weiss recognizing Mark for authoring textbooks that have had a profound impact on students. The first SIGCSE Award for Lifetime Service to the Computer Science Education Community was given to Dick Austing in 1997. Last year we honored Frank Young for over 40 years of service to the computer science education community.

The SIGCSE Award for Outstanding Contribution to Computer Science Education honors an individual or group in recognition of a significant contribution to computer science education. The SIGCSE Award for Lifetime Service to the Computer Science Education Community honors an individual who has a long history of volunteer service to the computer science education community. Recipients are selected by the members of the SIGCSE board from individuals nominated by SIGCSE members. The deadline for nominations each year is October 1st. The nomination process is simple; all you have to do is to identify the individual being nominated, the award they are being nominated for, and provide a 1-2 page statement of why the individual deserves the award. Letters of support from at least two other people on behalf of the nominee must also be provided in order for the nomination to be considered.

Deadline SIGCSE

Here are some upcoming deadlines and dates you won't want to miss!

August 3 Nomination for ACM Distinguished Member deadline

http://awards.acm.org/distinguished_member_nom_guide.cfm

August 28 Due date for SIGCSE 2016 Paper, Panel, Special Session and Workshop Submissions.

<http://sigcse2016.sigcse.org/authors/index.html>

Sept 28 Due date for SIGCSE Student research competition submissions.

<http://sigcse2016.sigcse.org/authors/index.html>

Oct 1 SIGCSE Computer Science Educator Award Nominations

<http://www.sigcse.org/programs/awards/nomination>

Oct 12 Acceptance notification for SIGCSE 2016 Paper, Panel, Special Session and Workshop Submissions.

Oct 15 SIGCSE Travel Grant Program applications due

<http://sigcse.org/travelGrant>

Oct 23 Deadline for SIGCSE Birds of a Feather, Demos, Lightening Talks and Poster submissions.

<http://sigcse2016.sigcse.org/authors/index.html>
